To the right honorable Sir Edward Fines, of the noble order of the Garter Knight, Lord Clinton and Saye. &c. Leonard Digges *wisheth continuaunce of healthe, and dailye* encrease of honoure.

After my troubles (right honourable and my singular good Lord) my duety made me carefull to procure, that some frute of my studies might declare me thankfully minded toward your Lordshyppe among other honorable, to whome I owe myselfe withal my endeuoure and frutes of studye. For the performaunce wherof, not onlye your Lordshippes talcke moued of a *Prognosticacion* semed then to make that argument fittest, but also the manifest imperfections, and manifold errors yearely committed did craue the ayde of some that were both willing and able to performe the truthe in like matters. As I thought it therfor these causes worthy the labour, truely and briefly to collect many thinges both necessarye and pleasaunt, as wel for Nobilitye as other, and to adioyne them to my general *Prognostication* imprinted in the yeare 1553, augmentinge diuers waies the same, and more orderly placing suche as were before set forthe: so sythens calling to minde other right pleasant rules and conclusions, likewise pertaining to the purpose aforesaide, and bearinge still in minde a like thanckefull remembraunce of your goodnesse, I thought it meete at this edition to encrease it ones agayne, and by presenting it vnto your honour, declare the continuaunce of my right heartye zeale to acknowledge your goodnesse. As therfore in the other your Lordship receiued in one lytle Booke by infallible rules taughte for euer a truthe of suche thynges as before were put forthe in many volumes by other, eche for one yeares profite onlye, whereby the authors were of necessitye compelled to make a yerely renewing of them with yearely encrease of errours: and further you had in it diuers other conclusions general of none before attempted: so in this your Lordship shall yet receiue the same in sundrye places more plainly and fully set fourth, and other not vnprofitablye adioyned, as in perusing shall euidentlye appeare. These with my moste humble thanckes for your great goodnesse al maner waies declared towarde me, according to my duety I do present vnto your honour, and beseeche you in good worth to receaue: and haue willed them to passe vnder protection of your Lordshipps name, that if to any man any commoditye shall ensue thereby, such as receiue it may haue cause to further me in yelding thankes to your honoure.

A PROGNO-

ſtication euerlaſting of right good effect, frutefully augmen-
ted by the author, containing plaine, briefe, pleaſant, cheſen
rules to iudge the weather, by the Sunne, Moone, Starres, Cometes, Rayn-
bowe, Thunder, Cloudes, with other extraordinary tokens, not omitting
the Aſpectes of planetes, with a briefe iudgemente for euer of plentye,
Lacke, Sickneſſe, Death, VVarres, &c. openinge alſo manye natural cauſes
worthy to be knowen. To theſe and other now at the laſt are adioyn-
ned diuers general pleaſaunt Tables, with many compendious rules,
eaſye to be had in memorye, manifolde wayes profitable to all
manner men of vnderſtandinge: once againe publyſhed
by Leonarde Digges gentleman, in the yeare of
our Lord. 1564.

Imprinted at London in Fletеſtrete by Thomas Marſhe,
nere to S. Dunſtons Churche

BIBLIOTHECA BODLEIANA

To the right honorable Sir Edward Fines, of the noble order of the Garter Knight, Lord Clinton and Saye. &c. Leonard Digges wisheth continuaunce of health, and dailye encrease of honoure.

AFter my troubles (right honourable and my singular good Lord) my duety made me carefull to procure, that some frute of my studies might declare me thankfully minded toward your Lordshyppe among other honorable, to whome I owe my selfe withal my endeuoure and frutes of studye. For the performaunce whereof, not onlye your Lordshippes taicke moued of a *Prognosticacion* semed then to make that argument fittest, but also the manifest imperfections, and manifold errors yearely committed did craue the ayde of some that were both willing and able to performe the truthe in like matters. As I thought it therfor these causes worthy the labour, truely and briefly to collect many thinges both necessarye and pleasaunt, as wel for Nobilitye as other, and to adioyne them to my generall *Prognostication* imprinted in the yeare 1553, augmentinge diuers waies the same, and more orderly placing suche as were before set forthe: so sythens calling to minde other right pleasant rules and conclusions, likewise pertaining to the purpose aforesaide, and bearinge still in minde a like thanckefull remembraunce of your goodnesse, I thought it meete at this edition to encrease it ones agayne, and by presenting it vnto your honour, declare the continuaunce of my right hartye zeale to acknowledge your goodnesse. As therfore in the other your Lordship receiued in one lytle Booke by infallible rules taughte for euer a truthe of suche thynges as before were put forthe in many volumes by other, eche for one yeares profite onlye, whereby the authors were of necessitye compelled to make a yerely renewing of them with yearely encrease of errours: and further you had in it diuers other conclusions general of none before attempted: so in this your Lordship shall yet receiue the same in sundrye places more plainly and fully set fourth, and other not vnprofitablye adioyned, as in perusing shall euidentlye appeare. These with my moste humble thanckes for your great goodnesse al maner waies declared towarde me, according to my duety I do present vnto your honour, and beseeche you in good worth to receaue: and haue willed them to passe vnder protection of your Lordshipps name, that if to any man any commoditye shall ensue thereby, such as receiue it may haue cause to further me in yelding thankes to your honoure.

To the Reader.

TO auoide (gentle Reader) the yearelye care, trauailes, and paines of other, with the confusions, repugnances, and manifolde errors, partlye by negligence, and oft through ignorannce committed: I haue again briefly setforth a *Prognostication generall*, for euer to take effect, adioyninge therto diuers profitable collections, and many pleasant conclusions, easye of all willinge ingenious to bee perceyued. Here note (Reader) where as the *eleuate Pole*, and *Meridian* should be considered, in this worke it is performed for London, because I wyshe this *Meridian, Situation*, or *Clime* the exacte truth of thinges. If any yearely practises in like matters agree not with my calculations, be assured they are false, or at the least for other *Eleuations*, or *Meridians* supputated, and therfore litle seruing thy purpose. And that the late rude inuentions, and grosse deuises of some this yeare, and two yeares past, published might be of them perceiued, then filed, and so serue to some profit: I haue purposed euen nowe to putte forth a booke named *Pansuges*, wel seruinge their turne, and so generallye and moste exactly al Europe, pleasaunt, profitable to the learned, and no small delight to all maner men. An other booke is also al readye come to thy handes, titled *Tectonicon*, a treasure vnto the Masons, Carpenters, and Landmeaters, correctinge theyr olde errors wrongfully reckened of them as infallible groundes, teaching faithfully, sufficiently, and very briefly, the true mensuration of al maner land, tymbre, stone, bourd, glasse. &c. and at the end containinge an *instrument Geometrial* appoynted to their vse. Take in good worth these labors (louing Reader) and loke shortly for the pleasant frutes *Mathematical*, euen such as haue promised by my frendes, and partly by me. Neither shall my desire to profit here stay: but entendeth farther to procede, if these seme accepted. As the good will of Printers not had hath kept the foresaid from you: so I truste the willinge minde and excellency of Thomas Gemini shall bring thē shortlye vnto you. Certes my hope is, while life remayneth, not to be vnfruteful to this commone wealthe, with study, and practise.

Agaynst the reprouers of Astronomie, and sciences Mathematicall. Fol. I.

I Am diuersly occasioned (louinge Reader) somewhat to wryte in the commendation of the *Mathematicals*: whiche neded not, but only to open the folish rashenes, and rashe folishnes of suche, which of late haue in wryting dispraysed these goodly Artes. It is an olde sayde sawe, and trewe: *Scientia non habet inimicum nisi ignorantem.* But to auoide tediousnesse, & chiefly for the more satisfiyng. I refer all of that sorte, whiche haue tasted any learnyng (the rest not regarded) to the first parte of famous *Guido Bonatus de utilitate Astronomie in communi*: wher he wryteth *contra illos, qui dicunt quod Scientia stellarum non potest sciri ab aliquo: contra illos, qui dixerūt quod scientia stellarū non est utilis, sed potius damnosa &c. contra illos, qui contradicunt iudicis Astronomie, & qui reprehendūt eam, nescientes dignitatē eius, eo quod non est lucratiua.* Also for breuitie, I appoynt al nice deuines, or (as *Melancthon* termeth them) *Epicurei Theologi*, to his hie commedations touching *Astronomie*, vttered in his epistles to *Simon grineus* to *Shonerus*, and to the peroration of *Cardanus* fyue bokes, where he sheweth how far wide they alledge the scriptures against ẏ *Astronomer*, whych make wholy with the *Astronomer*. *Melancthon* wryteth and affirmeth, *Arrogantiam esse cum summa stultitia coniunctam, uenari chorragium aliquod glorie ex insectatione artium, que sunt graui autoritate doctorum &c. prudentium recepte.* He called it *manifestum insanie genus*, declaring *quod magis opus habent Medicis, quam geometris*, aduising ẏ lerned not to geue eare vnto their foly. *Sinanus (ait) una cum Epicuro ineptire.* Whiche counsel lo, I folowe. Now therfore, ye enemies of al good doctrine, either geue an ouerthrowe, and that with your penne, or let famous *guido*, or learned *Melancthon* satisfye. If neither: certes I wil shortly (God sparyng lyfe) take some payne in publishynge the wonderfull vnknowen pleasant profites of these dispraised hyghe knowledges, and by that meanes to enforce silence. Now in fewe, for thy encouragemente in these, thus I saye and trewly, the ingenious learned, and well experienced circumspect student *Mathematicall* receiueth daily in his wittye practises more pleasaunt ioye of mynde, then all thy goodes (how ryche so euer thou be) can at any tyme purchase. *Id tantum quod pulchrum est, quod purum est, quod diuinū est, nihil mortale sapiēs dulci ardore amplectitur. Vt multa paucis, crede mihi extingui dulci erit Mathematicarum artium labore.* Nowe to ende, that learned *guido*, that excellent *guido Bonatus*, sheweth what Astrologi or Astronomy is, and ought not sayth he, by any mean to be reprehended,

Vituperant, qui sipliciter eas ignorant.

hended, in that the moste wyse, yea, the holye fathers haue practised that science. He proueth it one of the chiefe sciences *Mathematical*, by the authoritie of the best learned, and by *Aristotle* in his *Posteriorum*. Howe commeth it to passe louing Reader, seinge it is a noble science, *& scientia est notitia uera conclusionum, quibus propter demõstrationem firmiter assentimur*, that it is counted vayne, and of no small strengthe, the secret truthes and moste pleasaunt profites therein not desired, yea vtterly despised and of some busy byghting bodies reiected as very lies? Let no man doubt ignorauncy, the great enemie of all pure learning hath wrought this. *Nam incertam uocat hanc artem uulgus, propter errores non artis, sed hominum indoctissimorum inscitiæ, & temeritati imputandos, qui citra delectum omnia effutiunt.* Thus I leaue indigestly farther to trouble: fauour me as I tender the furtheraunce of good learninges, profytable to a common wealth. Fare moste hartely well, vnfayned good Christian Reader.

Stulti negligunt & contemnunt, qui contradicit ambitiosus est, qui maledicit, fatuus.

FRom the next side to the fifth leafe are contained the formes of a *Quadrant*, *Square*, *Circle*, *Quantities*, with a Figure truly placing the sayd *Quantities* in the *heauen*.

From the.5.to the.13.ye haue the iudgemente of weathers by the *Sunne*, *Mone*, *Starres*, *Cometes*, *Raynbow*, *Thunder*, *Cloudes*, with extraordinary tokens and aspectes of *Planetes* &c.

The.13.14.15.and.16 leaf shewe the causes of suche alteration according to *Aristotel*, fyrst of the *Raynbow*, then *Rayne*, *Frost*, *Dew*, *Snowe*, *Haile*, *VVyndes*, *Earthquakes*, *Thundres*, *Lyghtninges*, *Cometes*, *Sunne* and *Mone eclipsed*, *Quantities* of the *Planetes*, and their *placinge* ocularlye demonstrated.

The.17.thaspectes of the *Moone*, and her signification in the.12.celestiall *Signes*.

The.18.19.and.20, what *Signe* the *Moone* is in, and shalbe for euer, the mete tyme to *let bloud*, to *Purge*, to *Bathe*, *to fall Tymber*, to *Sowe*, to *Plante*, to *Graffe*, *Cut*, *gelde*, &c.

The 20 and 21 haue *Tables* for the *Sonday letter*, for the *golden number* or *Prime*, for the *Epacte* and *Mouable feastes*, many waies conducing.

The.22.23.and.24, the age of the *Moone*, the chaũge and quarters for euer are declared, the *Ebbing* and *Flowinges*, the break of the *Day*, the *sunne rysing*, the lengthe of the *Day* and *Nyght*, the *Twylight* for all the yeare.

The.25.26.and.27, shew exacte pleasaunt wayes for the daye and nyght houre, with composition of mete *Instrumentes*.

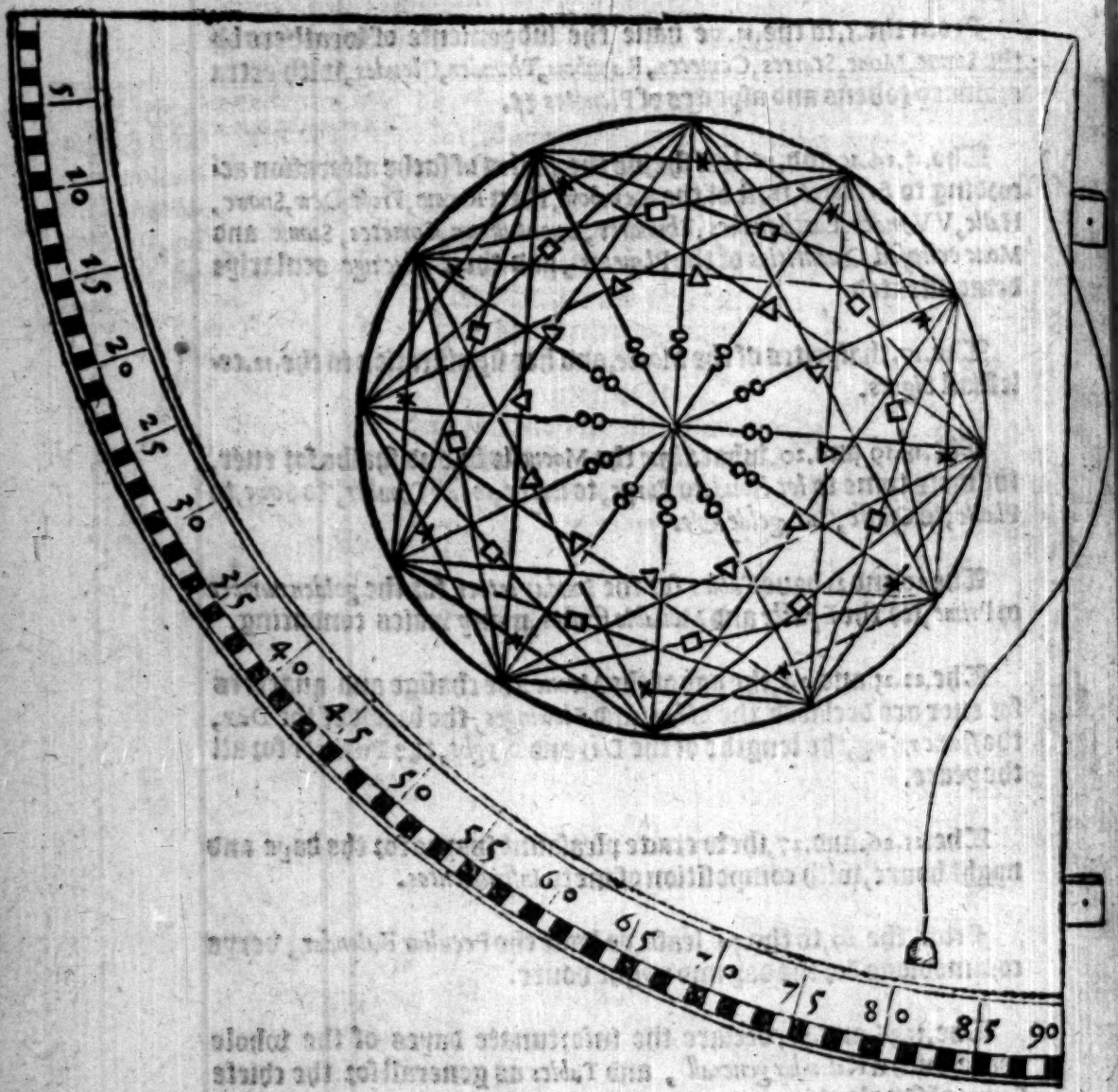
From the.29, to the.34, leafe, ye haue the *Peculiar Kalendar*, verye commodious for the day and nyght houre.

The.35.36.and.37, declare the infortunate dayes of the whole yeare with a *Kalendar generall*, and *Tables* as generall for the chiefe *Fayres* of Englande.

The.38.39.and 40, containe pleasant *Tables* for the heighte of the *sunne* at all houres, for ryghte and squire *Shadowe*, conducinge also to the composition of many *Instrumentes*, &c.

The.40.and.41, leafe, *Collections* easy to be had in memory.

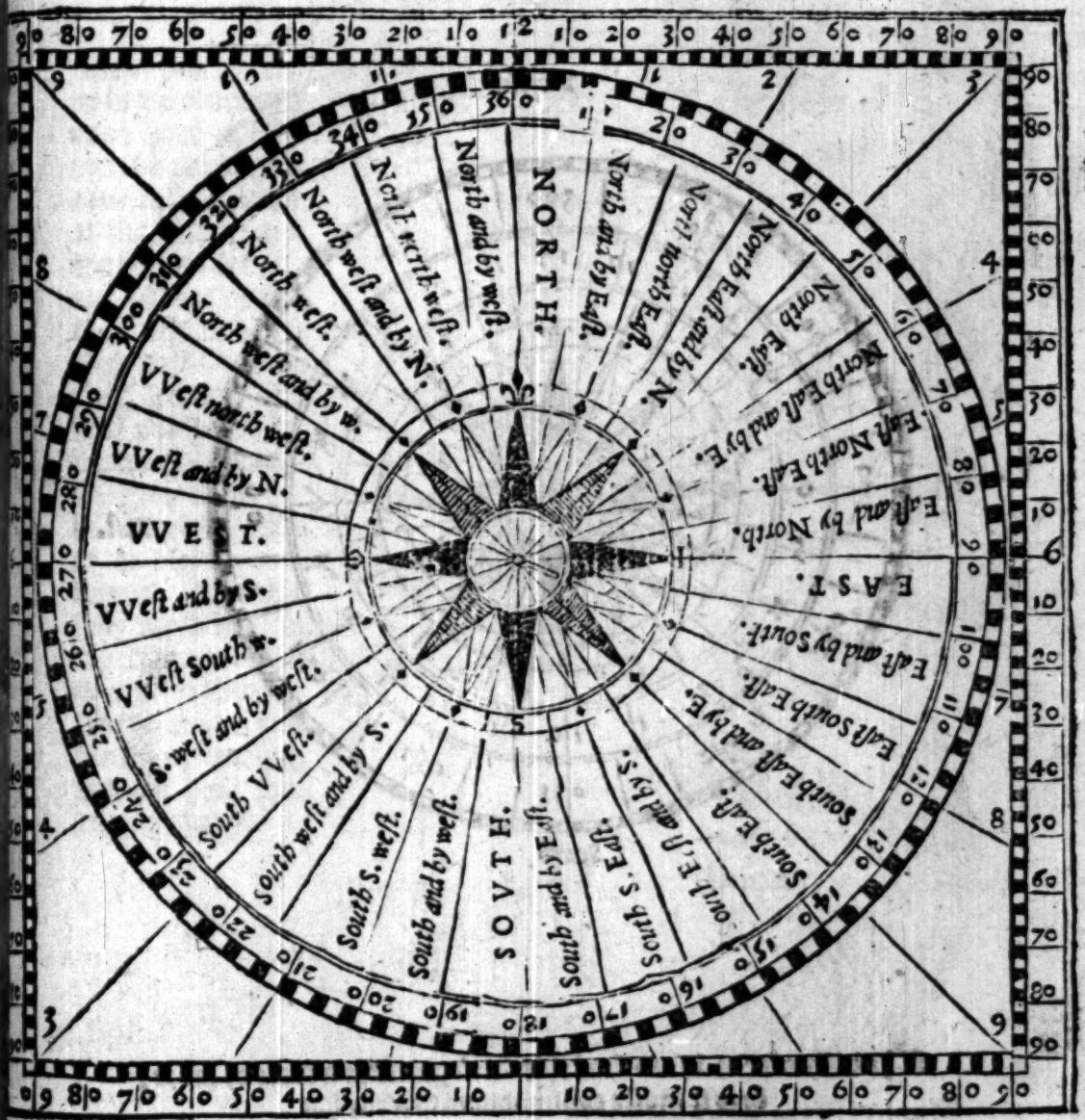
This Quadrant is apointed here to get eractly the lẽgth of Staffe and Squier shadowe, howe vnleuel so euer the grounde be, as I haue sufficiently instructed in the 38. leafe.



If ye lyst not to make a Quadrante, ye may vse this very wel: adding a plumbmet and lyne, with sightes or otherwise.

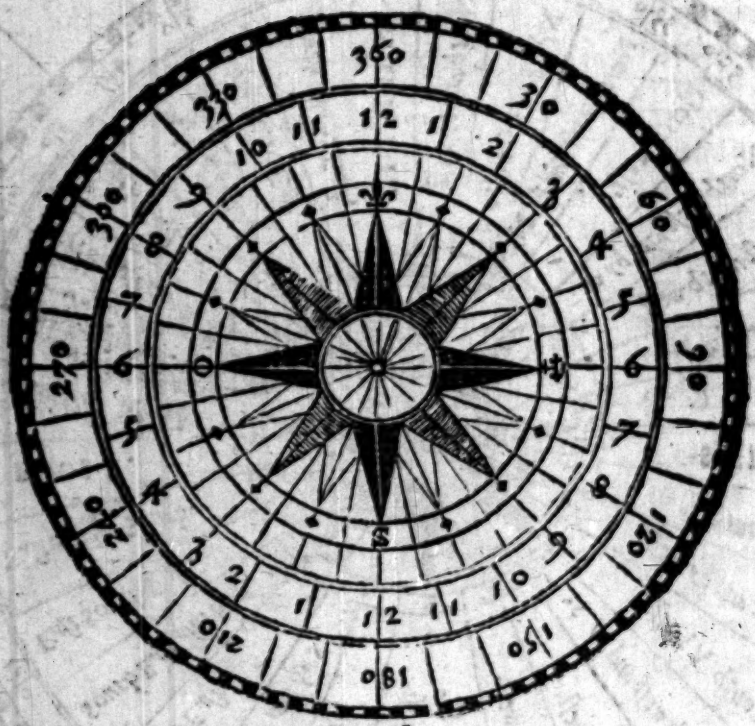
This *Instrument* must be made in a playne fine metall plate, a foote or more square. Then it is pleasaunte for the houre of the daye and nyght, either to be fixed aboute your house, or moueable if ye lyst, by a Nedle to be placed where and when ye wyll. *Fol.* 3.

The 26 leafe sheweth the making.



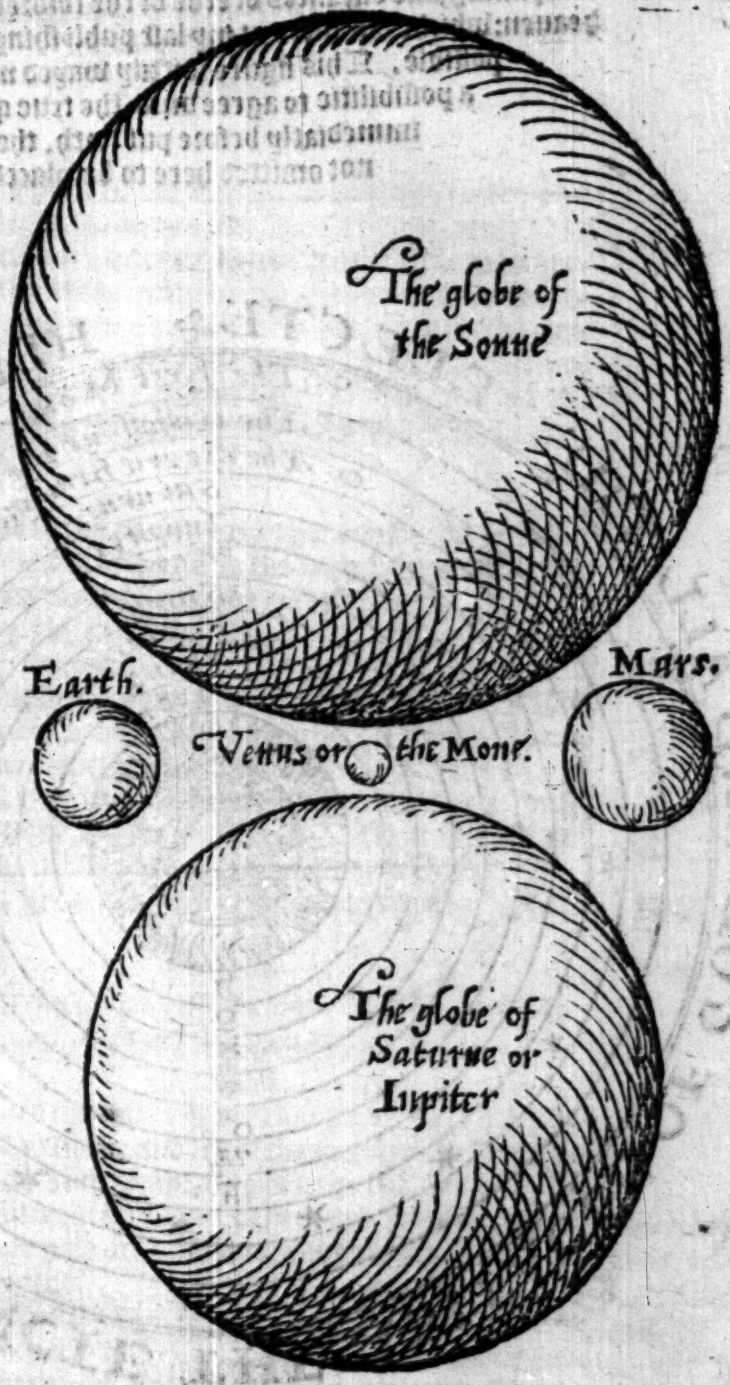
The good Mariner may long for the vse of this Instrument: it serueth marueilously his tourne.

Or thus, without the Square this Circle will serue well your purpose, beynge exactly made, and truely placed.

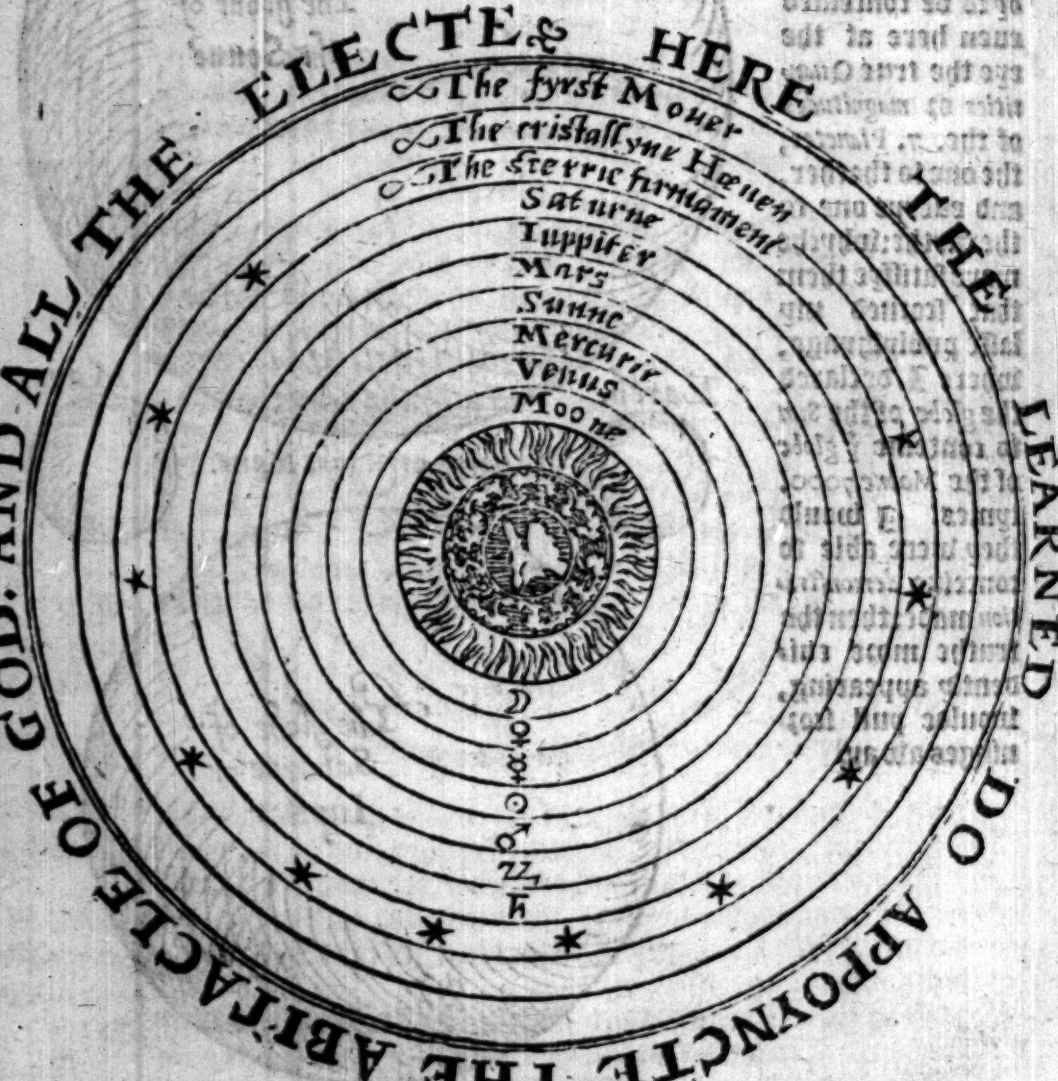


The diameter or breadth of this Circle, must be a foote or more, so is it moste commodious to serue his vse declared.

I haue placed ready to be conceiued euen here at the eye the true *Quantities* or *magnitudes* of the. 7. *Planetes*, the one to thother, and euerye one to the earthe: whyche maye fatisfye them that scorned my laste publyshynge, where I declared the *globe* of the *Sun* to conteine ỹ *globe* of the *Moone* 7000. tymes. I would they were able to conceiue *demonstration* made: then the truthe more euidently appearing, woulde pull scornynges away.



I thought it mete also to put here this figure, shewing the placing, compassing, and distances of eche of the forsayd Plantes in the heauen: whiche distances at my last publyshing were thought impossible. This figure wittily waged may confirme a possibilitie to agree vnto the true quantities, immediatly before put forth, therfore not omitted here to be placed.



by the Sunne ryſinge or goynge downe.

THe *Sunne* in the Horizon, or ryſynge, cleare and bright, sheweth a pleasaunt day: but thinly ouercast with a cloude, betookeneth fowle weather. Also at the going doune, the body diuers coloured or redde, and about dispersed with like cloudes, the beames red, and of length, pronounce gret windes, the nert day frō that part. Blacknesse in the *Sunne* or *Moone*, betookeneth water, Redde, signifieth winde. De obſeruandis meteoris.

The element redde in the euening, the nert day fayre, but in the morning redde, wynde and rayne. Also the *Sunne* beames spotted, grene, pale, or black gathered to a cloude, signifieth raine. Further the *Sunne* at the setting playnly seene without any cloude, declareth a faire night to ensue. Here note, *Ptolome* willeth vs diligentlye to obserue the circle, or circles about the *Sunne*. If it be cleare, and the circle of no continuaunce, beholde fayre weather: If many of them, wynde. Wyndes more vehemente are signified, if that the circles be somewhat redde, here & there broken: but these obscured, thick, and blacke, looke for colde, wynde, and snowe. What is spoken of the *Sunne*, touching the circles, the same is ment of the *Moone*.

Note here that greater wyndes chaunce in the daye, then in the nyght. Note.

Howe weather is declared by the coloure of the Moone, and by the nature of the Signe wherein she is.

IF the *Moone* in the thirde of her chaūge, yea three daies before the full, or in the middes of the quarter, be founde of pure light, nothing compassing her, the end direct vp, she promiseth faire weather, but bent to red coloure, pronoūceth winde. The *Moone* pale or somwhat inclined to black, obscure or thicke, threatneth raine. *Luna rubens uentat, pallor pluit, Albescens.*

ALso by the nature of the sign, weather may be iudged, thus, according to *Stoeflerinus*, *Monte regius*, *Leupoldus*, and famous *Guido Bonatus*, with others well trauailed in the mutations of ayer.

♈ ♌ ♐ hotte.

♉ ♍ ♑ earthye.

♊ ♎ ♒ winedy.

♋ ♏ ♓ watry.

COnsider the nature of the Signe where the Moone is, at the chaũge, quarter, & ful. If she be in hote & dry signes, as *Aries*, *Leo*, *Sagittarius*, in Winter a good token of faire weather: In Sommer, a great signification of immoderate Heat: If in earthly, cold and dry signes, as *Taurus*, *Virgo* and *Capricornus*, in winter iudge Colde, Frost, and Snowe to ensue: But in Sommer temperate Weather. In aerye and winedye Signes, as *gemini*, *Libra* and *Aquarius* muche wynde. If in Watrye Colde and Moyste Signes, as *Cancer*, *Scorpius* and *Pisces*, in Winter wet Weather: In Sommer a pleasant temperature.

ALso, the *Sunne* in *Aquarie*: the *Moone* at the chaunge there, or in *Sagittarie*, or at the ful in *Leo* betokeneth raine. The *Sunne* in *Pisces* or *Aries*: the *Mone*, in *Virgo*, *Libra*, or *Sagittarie* signifieth raine, especially in watry dwellynges. The *Mone* in *aqua.* or *Pis.* loke for chaunge of weather: then chiefly she troubleth thair. The *Mone* also at the Chaunge, or rather at the Full, in *aries*, *Libra*, *Scorpius*, or *Pisces*, tempestuous weather foloweth. The *Sunne* in *aquari.* or *aries*, *Libra* or *Scorpio*, but chiefly in *Leone*: the *Moone* then at the Full, and that after raine or misslinges, loke for lyghtening, thundryng. &c. Also the *Sunne* or *Moone*, founde in *Pisces*, without all helpe of *Mars*, it betokeneth aboundaunce of rayne, lyghtning, thunder. &c. To conclude the *Moone*, in *Cancer*, *Leo*, *Capricornus*, or *aquarius*, ayded with any aspect, but chiefly with the opposition or quadrate of *Venus*, raine foloweth.

The iudgement of weather by Starres.

Cum molora apparet, tum enim Humore medius crassescit aer.

BEholde the Sterres whose magnitude you knowe best. If they appeare of much light, in bignes great, more blasing then they are commonly, it betokeneth greate wynde or moysture in that parte where they shew: in winter, cold & frosty. When Sterres seme to runne in the Element, it sheweth wynde. Affirme also alteration of weather if they be few in numbre, cloudy, & of little light. Further when dimme starres appeare with long fiery tailes iudge wyndes, and greate drought: the more in numbre, the greater effect. When Sterres in the night (as it is sayde) shote, or seme to fall, it argueth wynde in that parte. If in diuers places, inordynate wyndes: if in all places, then pronounce wyndes, thunder, lyghtenynges, yea weather moste tempestuous.

The

V.

The Sygnification of Cometes.

COmetes signify corruption of the ayre. They are Signes of Earthquakes, of Warres, chaunginge of kingdomes, great dearth of Corne, yea a common deathe of Man, and beast. *Pontanus sic scribens: Ventorũ quoque certa dabunt tibi signa Cometæ. Illi etiam belli motus, feraque arma minantur, Magnorum & clades populorum, & funera regum aquarum significat penuriam.*

De cometarũ prodigus, lege Cardanũ lib. 4. Fol. 83. & Antoniũ Mizaldum de cometographia.

Howe by the cloudes, chaunge of weather is perceiued.

IF thicke cloudes resemblyng flockes, or rather great heaps of wol, be gathered in many places, they shew rayne. Also when grosse, thicke, darke cloudes, ryght ouer the North parte, or somewhat declininge to the West, are close with the earth, immediatly foloweth rain. If they appeare like Hilles, somedeale from the earth, a good token of weather ouerpassed. Blacke cloudes, signifie raine. White cloudes appearing in Winter, at the Horizon, two or thre daies together, prognosticate cold, and snowe.

Of the Rayne bowe and his effecte, touching alteration of ayre.

IF in the morning the Raynebowe appeare, it signifieth moysture, onlesse great droughte of ayre worke the contrary. If in the eueningit shewe it selfe, fayre weather ensueth: so that aboundaunt moyst ayre take not away the effect.

Arcus nisi sole aduerso non fiunt.

Or thus.

THe Raynebowe appearing, if it be fayre, it betokeneth fowle Weather: if fowle, loke for fayre weather. The Grener, the more raine: Redder, winde.

Non apparet nisi cum Papores rarificantur, uel inspissantur.

Of Thunders what they Signifye.

Signum futurorum bellorū

Thunders in the morning signifye wynde: Aboute Noone, rayne: In the euening great tempest.

Somme wryte (their ground I see not) that Sundayes Thunder, shoulde bringe the deathe of learned men, Iudges & others: Mondaies Thundre, the death of women: Tuesdayes Thundre, plentye of grayne: VVednesdayes Thunder, the deathe of Harlots, and other bludshed: Thursdayes Thunder, plentye of Sheepe, and Corne: Frydayes Thunder, the slaughter of a great Man, and other horrible murders: Saturdayes Thunder, a generall pestilent plage and great death.

Howe weather is knowen after the chaunge of euery Moone by the prime day.

SVnday prime, dry weather. Mōday prime, moist weather. Tuesday prime, cold and windy. Wednesday prime, wonderful. Thursdaies prime, fayer and clear. Frydaies prime mirt weather. Saterday prime, moist weather.

Nowe ensueth extraordinary tokens for the knowledge of weather.

Commone tokens of weather, mete for all manner wittes.

Some hath obserued euill weather to folowe, whan watry Fowles leaue the Sea, desiringe lande: the Fowles of the lande flyinge hyghe: the Crying of fowles about Waters makynge a greate noyse with their winges: Also the Seas swellynge with vncustomed Waues: If beastes eate gredelye: If they lycke their hoaues: If they sodaynlye moue here and there making a noyse, brethyng vp to the ayre with open nostrels: rayne foloweth. Also the busy heuing of Moules, the appering or cōming oute of Wormes: Hennes resorting to the perche or reste couered with dusk, declare rayne. The Ample workinge of the Spinnar in the ayre: the Ant busied with her egges: the Bees in fayr weather not farre wandryng: the continuall pratyng of the Crowe, chiefly twise

twise or thrise quycke calling, shewe tempest. When the Crowe or Rauen gapeth against the Sunne, in Sommer heate followeth. If they busy them selues in proyning or washyng, and that in winter, loke for raine. The vncustomed noise of pultry, the noise of Swine of Peacocks declare the same. The Swalow flying and beating the water, the chirping of the Sparow in the morninge, signifye raine. Raine sodainlye dried vp, Woodye coueringes strayter then of custome: Belles harde further then commonlye, the wallowynge of Dogges, the alteration of the Cock crowing, al declare rainy weather. I leaue these, wantinge the good grounde of the reast. If the learned be desyrefull of the to forsayd, let them reade graue Virgil *primo georgicorum* At Bor. &c.

There be a multitude of other not extraordinary, but of the best knowen causes: many for breuitie here omitted, the moste part not mencioned, because they passe the capacitye of the common sorte, vpon all the which the *Astronomer* doth wel and learnedly conclude. I doubte not, there be also sometime vnknowen matters, mittigating the aforesayde, or prouoking tempest vnloked for, whiche neyther experience, ne learning, hath stablyshed. Howe vnkinde (these considered) yea howe farre from worthy thankes geuing are they, whiche in generall heddely do blame checking bitterly the *Astrologer*, with these Judiciarie matters, (the least part among a numbre of his moste certayne doynges) when thynges fortune contrarye to expectation? Understande gentle Reader: the consente of a multitude famouslye learned is their Buckelar, euen in theese matters iudiciari: Who haue wayed a longe tyme prudentlye, the greate strengthe, the vehement force, and marueylous natures, of all erraticall and celestiall constellations, with their *Angles Radiations, Aspectes, Affections, Stationes, Progressions, Defections, Dispositions, Applications, Preuentions, Refrenations, Contrarieties, Abscisions, Coniunctiõs Quadratures*, and *Oppositions*. &c. Therfore extreme folye, yea more then madnes doth he vtter, which imbraideth or backbiteth these knowledges, not remembring the great, and manifolde benefites hadde through them, and that with moste certainty in all other doynges.

What *Meteoroscoper*, yea who learned in matters *Astronomicall*, noteth not the greate effectes at the risinge of the starre called the *Litle dogge*? Treuly the consent of the best learned doo agree of his force: yea *Plinie*, in his Hystory of nature affirmeth the seas thẽ moste fiers, Wines to flow in cellars, standing waters to moue, Dogges inclined to madnesse, then most wood. Farther these constellatiõs, *canis minoris efficatia.*

Orionis, Arcturi, Coronae Capre, succulari effectus

Orion, arcturus, Corona, rysinge prouoke tempestuous weather. The Kid & Goat, windes. Hyades or Succule rain. What Meteorologer cõsenteth not to the great alteration and mutation of aire at the coniunction, oppositiõ, or quadrate aspect of Saturn, with either two lyghts: Who is ignorant, yea menely trauailed in Astronomy that Iupiter with Mercury, or with the Sunne, inforceth rage of windes: What is he that perceiueth not the fearfull thunders, lyghtninges and raines, at the metinge of Mars and Venus, or Iupiter and Mars. &c. I leaue for shame to impugne these iudicials strongly authorised.

♂ □ ☉ ☍ ♄ cum ☉ aut ☽.

He that any other part carpeth may seme more then madde. All truthe, all experience, a multitude of infallible grounded rules are againste hym. *certum est omnibus que notum, quod coeli motus, signorum ortus, & occasus, planetarum aspectus, & cõiunctiones, luminariũ eclipses. &c. certissimum, determinatam, ac infallibilem habent causam. Quis iam sane mentis negabit eorum effectus sepere innotescere, ut pote bella, fames, grandines, acris perturbationes, elementorum commotiones, terre motus, & similia?*

♂ ♃ □ ☉ ☍. cum ☿ aut cũ sol &c

Positis causis naturalibus, & non impeditis, sequitur effectus.

The learned that listeth ingeniously to prognosticate of weather will not onlye discretelye way all before written, but consyder also with them the Aspectes of the Planets folowinge, and their Combustion in the 12. Signes, with the Coniunctions of fixed Starres, Mansions of the Moone, Ascendent, Climes &c. Also the tymes or quarters of the yere must be noted diligently, as (insueth) and iudgement accordingly pronounced.

Of the yeare deuided in foure quarters.

♈ ♉ ♊ Power of the Brest.

THe Spring time is hot and moyste: and continueth so longe as the Sunne is in Aries, Taurus and Gemini: whiche is from the .x. of Marche vnto the twelfthe of June. The Somer is hot and dry, compted from the beginning of Cancer, to the end of Virgo, that is from the twelfthe of June, to the .xiiii. of September. Haruest is cold and dry: that is from the beginning of Libra, vnto the ende of Sagittarie: coumpted from the .xiiii. of Septemb r to the .xiii. of Nouember. Wynter is colde and moyste: continued from the beginning of Capricornus, to the ende of Pisces: that is from the .xii. of December, to ther .x. of Marche.

♋ ♌ ♍ ♎ ♏ ♐ ♑ ♒ ♓ Power ouer all fleunes.

Nowe

Here folowe the aſpectes of the Planetes for the better iudgement of VVeather.

BEfore I declare of Planetes, and the ſignification of aſpectes, it behoueth briefly to open what I call *Planetes*, and what *aſpectes*, and how they are charactered and figured. Underſtande there be ſeuen moueable ſterres pleaſaunt to the ſighte, called Planetes. The hyghest *Saturne*. ♄. Then *Iupiter*. ♃. *Mars*. ♂. *Sunne*. ☉. *Venus*. ♀. *mercury*. ☿. and the *moone* ☽ next to the earth. Nowe when I deſire to expreſſe Saturn, I write this figure ♄: for Iupiter this ♃: for Mars this ♂. Thus of thothers as their characters declare. All Radiations or Aſpectes are expreſſed as folow. A Coniunction thus figured ☌: And it is, when an other Planet is ioyned wyth the Sunne or Mone, or others among them ſelues, within one degree or leſſe. The Sextile Aſpect or Radiation, is thus expreſſed ⚹: And it is within 60. degrees thone from the other. The Quadrate aſpect, thus □: 90. degrees diſtaunt. The Trine thus △: ſeperated 120. degrees. The Oppoſition, thus ☍: 180. degrees, the one diſtant from thother. Loe here they folowe in order: the characters of the Planetes: and Signes alſo.

☌ ⚹ □ △ ☍

Coniunctions. Sextile. Quadrat. Trine. Oppoſition.

♄ ♃ ♂ ☉ ♀ ☿ ☽

Saturne. Iupiter. Mars. Sunne. Venus. Mercury. Moone.

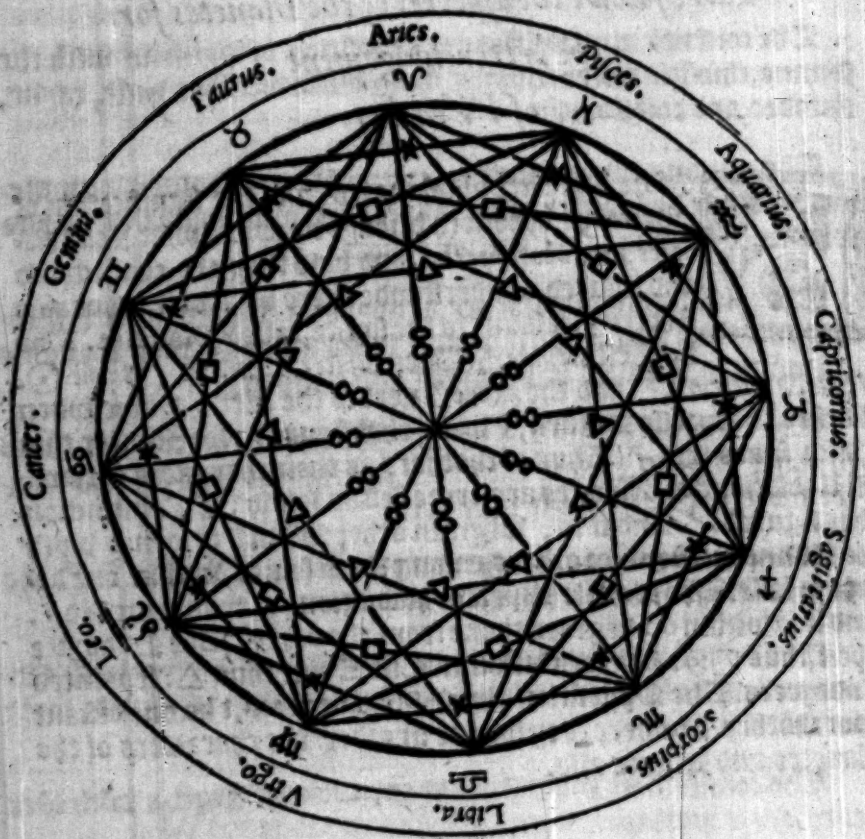
♈ ♉ ♊ ♋ ♌ ♍

Aries. Taurus. Gemini. Cancer. Leo. Virgo.

♎ ♏ ♐ ♑ ♒ ♓

Libra. Scorpius. Sagittarius. Capricornus. Aquarius. Piſces.

Yet for more playnesse beholde this fygure.



The signification of aspectes of Planets among them selues: for the iudgement of weather.

The coniunction or meetinge of *Saturne* with *Iupiter*, in fiery Signes, inforceth greate droughte: In Watrye *Signes*, Fluddes, continuall Rayne, generall ouerflowynges. &c. In *Aery Signes*, plentye of Wyndes. The *Quadrante*, *Sextile*, or *Opposition* of *Saturne*, with *Iupiter*, in moyst Signes causeth troubled Ayre, by Hayle, Wynde, Rayne, Thunder. &c. before and after.

♄ ☌, cum ♃

♄ □ ⚹, & ☍, cum ♃

The con-

The coniunction, Quadrature, or oppositiõ of Saturne with Mars, in watry Signes, declare in Sommer raine, often shoures, with haile, thunder and lightning. ♄ ☌ □, et ☍ cum ♂.

The coniunction, quadrature or oppositiõ of Saturne with the Sunne, chiefly in colde Signes, shew darke weather, haile, rayne, thunder, and colde dayes. ♄ ☌ ☍, et ☍, cum ☉

The coniunction, quadrature, or oppositiõ of Saturn with Venus, in winter engendre colde and rayne, principallye in moyste Signes: in Summer, mitigation of heat. ♄ ☌ □, & ☍, cum ♀.

The coniunction, quadrature, or oppositiõ of Saturn with Mercury, in watry Signes, bring raine in hot or dry Signes, droughte in Summer, thunder, lightninges, and tempest. ♄ ☌, □ & ☍ cum ☿.

The coniunction, quadrature, or oppositiõ of Iupiter with Mars in moyst Signes, declare thunders, lightninges, and rain: in wynter, snow, or cloudy thicke weather. ♃ ☌ □, & ☍, cum ♂.

The coniunction, quadrature, or opposition of Iupiter with the Sunne, great and moste vehement windes. ♃ ☌, □ & ☍, cum ☉

The coniunction, quadrature, or opposition of Iupiter with Venus, in moyste Signes, cold and mistinges: in the rest signes, fayre weather. ♃ ☌, □ & ☍, cum ♀.

The coniunction, quadrature or opposition of Iupiter with Mercury, great windes. ♃ ☌ □ & ☍, cum ☿

The coniunction, quadrature, or opposition of Mars wyth the Sunne in firy signes, drought: in watry, thunder, and raine. ♂ ☌, □ & ☍ cum ☉

The coniunction, quadrature, or opposition of Mars, with Venus, in moist signes, raine and tempest. ♂ ☌, □ & ☍, cum ♀

The coniunction, quadrature or opposition of Mars with Mercurye in hote signes, great heate: in drye signes, droughte: in Watry, Raine: sometimes Thunders, lightninges, with sodayne fierce windes. ♂ ☌ □ & ☍, cum ☿

The coniunction, quadrature or opposition of Venus with Mercury, causeth rayne: in somer they prouoke tẽpest, the more if they agre in watry Signes. Note what is sayde of the coniunction, qua- ☿ ☌ □ & ☍, cum ☿.

drature or opposition, the same is also ment of the Sextile & Trine: but they are of lesse signification: so the lerned noteth.

A declaration of weather by aspectes of the Moone with Planets.

☽ ☌, □ & ☍ cum ♄

The ☌ Coniunction, Quadrature or Opposition of the Moone with *Saturne*, in moyste Signes, bryngeth a cloudye daye, colde ayre, according to the nature of the Signe: If she go from *Saturne* to the *Sunne*, by coniunction or otherwise, harder weather ensueth.

☽ ☌ □, & ☍ cum ♃

The Coniunction, Quadrature or Opposition of the *Moone* with *Iupiter* in *Aries* or *Scorpio*, sheweth fayre weather, White dispearsed cloudes.

☽ ☌ □, & ☍ cum ♂

The Coniunction, Quadrature or Opposition of the *Moone* with *Mars* in watrye Signes, rayne: In hoote Signes, diuers coloured clouds are made, al the element ouer: In Sommer, often thunder.

☽ ☌, □ & ☍, cum ☉

The Coniunction, Quadrature or Opposition of the *Moone* with the *Sunne* in moyst Signes, rainye weather: The more if the *moone* go from the *Sunne* to *Saturne*.

☽ ☌, □ ♂ ☍, cum ♀

The Coniunction, Quadrature or Opposition of the *moone* wyth *Venus*, chiefly in moyste Signes, rayne foloweth: The *moone* goyng from *Venus* to *Mars*, more variety of weather.

☽ ☌ □ & ☍, cum ☿

The Coniunction, Quadrature or Opposition of the *moone* wyth *mercury*, in moist Signes, sheweth rain and winde, the more when the *moone* passeth from *mercury* to *Iupiter*: then greate Wyndes folowe.

Thowe

How weather is iudged by the Orientall and Occidentall station of Planettes, with their combustion in the 12. Signes celestiall. First of the Planetes in Aries.

ATVRNE in Aries combust, that is to saye vnder the beames of the Sunne, maketh a cloudye darcke troubled aire: Orientall, I meane in the morning appearing before the Sunne, fair weather: Occidental, that is to saye, shewynge hym selfe after the Sunne goynge downe, betokeneth great windes. ♄ in ♈

VVhat these termes Cõbust Orientall, and Occidentall meane.

Iupiter in Aries combust, a token of rain: being Occidental, it bringeth cloudes, and dewes: Oriental, faire pleasant wether. ♃ in ♈

Mars in Aries combust and Occidentall, good weather: contrarye Orientall. ♂ in ♈

Venus in Aries combust Occidental, moystnes, great wynddes Oriental thunders and raynes. ♀ in ♈

Mercury in Aries combuste, Tempest: Occidentall and Orientall, fayre wyndie weather. ☿ in ♈

Of the Planetes in Taurus.

ATVRNE in Taurus combuste, and stationarie, bryngeth thicke cloudes, thunders and troublesome weather. ♄ in ♉

Iuppiter in Taurus combuste, indifferente weather. Occidental, pleasant shoures. ♃ in ♉

Mars in Taurus combust, aquiet ayre but Oriental, windie. ♂ in ♉

Venus in Taurus combust, thunders, &c. Occidental, fayre. ♀ in ♉

Of the Planetes in Gemini.

♄ in ♊ SATVRNE in Gemini combuſt and Occidentall drought.

♃ in ♊ Iuppiter in Gemini combuſt, a good ſignification.

♂ in ♊ Mars in Gemini combuſt and Occidentall, heat.

♀ in ♊ Venus in Gemini combuſt Occidental, winde.

☿ in ♊ Mercury in Gemini combuſt, wynde.

Of the Planetes in Cancer.

♄ in ♋ SATVRNE in Cancer combuſte, darke weather, greate windes and troubleſome wethers: Occidental, calmer.

♃ in ♋ Iuppiter in Cancer combuſte, bryngeth calme pleaſaunte weather.

♂ in ♋ Mars in Cancer combuſt, great heat,

♀ in ♋ Venus in Cancer combuſt, a quiet calme time.

☿ in ♋ Mercury in Cancer combuſte, tempeſtuous weather, chiefly on the ſea: Occidental, calmer.

Of the Planetes in Leone.

♄ in ♌ SATVRNE in Leone combuſte, maketh wyndes and miſlinges.

♃ in ♌ Iuppiter in Leone combuſt, pleaſaunt windes.

♂ in ♌ Mars in Leone combuſt, Occidental, drought.

♀ in ♌ Venus in Leone combuſt, drought.

☿ in ♌ Mercury in Leone combuſt, windes.

Of the Planetes in Virgo.

SATVRNE in Virgine combuſt, is a ſignificator of infirmities. ♄ in ♍

Iupiter in Virgine combuſt, manifeſteth abouudaunce of thinges. ♃ in ♍

Mars in Virgine combuſt, like vnto Saturne. ♂ in ♍

Venus in Virgine combuſt drought: Oriental, contrary. ♀ in ♍

Mercury in Virgine cõbuſt, drought, raging ſeas: Occidental, drought. ☿ in ♍

Of the Planetes in Libra.

SATVRNE in Libra combuſte, ſheweth infirmitie of ſight: Oriental, colde windes. ♄ in ♎

Iupiter in Libra combuſt, indifferent weather. ♃ in ♎

Mars in Libra combuſt, bringeth moyſture. ♂ in ♎

Venus in Libra combuſt moyſt ayre. ♀ in ♎

Mercury in Libra combuſt, wyndes. ☿ in ♎

Of the Planetes in Scorpione.

SATVRNE in Scorpio combuſt, colde ayre: Occidental, froſt: Oriental, colde, north windes. ♄ in ♏

Iupiter in Scorpio combuſte, rayne: Occidentall, bytter weather. ♃ in ♏

Mars in Scorpio combuſt, declareth moyſture: Orientall, wyndes. ♂ in ♏

Venus in Scorpio combuſt, rayne, both Occidental and Oriental. ♀ in ♏

Mercury in Scorpio combuſt, raging weather, chiefly Oriental. ☿ in ♏

Of the Planetes in Sagittarius.

♄ in ♐ SATVRNE in Sagittarius combuste, colde rainye ayre: Oriental colde and frost.

♃ in ♐ Iupiter in Sagittarius combust, muche rain: Oriental: wotis weather.

♂ in ♐ Mars in Sagittarius combust, drought.

♀ in ♐ Venus in Sagittarius combust, rayne: Occidentall, wynde and colde.

☿ in ♐ Mercury in Sagittarius cõbust, rayne: Occidental, clere ayre.

Of the Planetes in Capricorne.

♄ in ♑ SATVRNE in Capricorne combuste, signifyeth darcke weather with South wyndes: Occidental, colde: Oriental, north wyndes.

♃ in ♑ Iupiter in Capricornus combust, moist air: Occidental increasing ỹ same.

♂ in ♑ Mars in Capricornus combust, cloudy: Occidental, some heat.

♀ in ♑ Venus in Capricornus combust, colde ayre: Oriental, raine.

☿ in ♑ Mercury in Capricornus combust, rayne, both Orieutal and Occidental.

Of the Planetes in Aquarius.

♄ in ♒ SATVRNE in Aquarius cõbuste, cold ayr: Occidental daungerous seas: Oriental, rayne.

♃ in ♒ Iupiter in Aquarius combust Occidental, rayne.

♂ in ♒ Mars in Aqua. combust, drought. Occidental & Oriental plẽty of windes.

♀ in ♒ Venus in Aquarius combust, cloudy: Occidental, hote: Oriental rayne.

☿ in ♒ Mercury in aqua. combust, snow, Occidental, moze colde, Oriental raine.

Of the Planetes in Piſces.

SATVRNE in Piſces combuſt, bryngeth cloudes, Occidental, raine. ♄ in ♓

Iupiter in Piſces combuſte Orientall, calme waters. ♃ in ♓

Mars in Piſces combuſt Occidentall, droughte: Orientall, lightning and thunders. ♂ in ♓

Venus in Piſces combuſt, colde, Occidental, diſpoſed to ſnowe. ♀ in ♓

Mercury in Piſces combuſt, moyſt ayre. ☿ in ♓

Thus muche of the iudgement of weather.

SEYNG that I haue nowe ſufficiently declared howe, by what rules and tokens, weather is iudged, I thinke it conuenient to adioyne here a breſe collection, howe Plentye, Scarcitye, Syckneſſe, Death, Alterations, Troubles, warres. &c. are for euer perceiued.

A rule to Prognoſtycate the aforeſayde, by the fallyng of Newe yeares day.

IT is affirmed of ſome, when Newe yeares day falleth on the Sundaye, then a pleaſant wynter dothe enſue, a natural Sommer, fruicte ſufficient. Herueſt indifferente, yet ſome wynde and rayne, manye mariages: plenty of Wine and Hony, death of ponge men, and cattell, robberies in moſte places, newes of prelates, of kynges, and cruell warres in the end. Sundaye.

ON Monday, a winter ſomwhat vncomfortable, Sommer temperate, no plenty of fruicte, many fanſies and fables opened, agues ſhall raigne: Kinges and many others ſhal die: marriages ſhalbe in moſte places: and a commen fall of Gentlemen. monday.

ON Tueſdaye a ſtormye wynter: a wet Sōmer: a diuers Harueſt: corne and frute indifferent, yet herbes in gardens ſhal not floryſhe: great ſyckeneſſe of menne, women and ponge Tueſdaye.

chyldren: Beastes shall hunger sterue, and dye of the botch: manye shyppes, galleis, and Hulkes, shalbe lost: And the bloudy Flyres shall kyll many men: All thynges dere, saue Corne.

VVednesday. ON VVednesday, Loe a warm wynter: In the end, snow and frost, a cloudy Sommer, plenty of Fruict, of Corne, Hay, wine, and Hony, great payne to Women with childe, and death to infants, good for shepe, newes of Kinges, greate warres, battel and slaughter toward the middes.

Thursday. ON Thursday, Wynter and Sommer winedye: A rainye Herueste: Therfore we shal haue ouerflowynges: Muche fruicte: plenty of honye: Yet Flesshe shalbe deare: cattell in generall shall dye, greate trouble, warres. &c. With a licentious lyfe of the feminine sexe.

Fryday. ON Fryday, Winter stormy: Sommer scante pleasaunt: Herueste indifferent: litle store of fruicte, of Wine, and Honye: Corne deare: Manye bleare eyes: Youthe shall dye. Earthquakes are perceaued in many places: plenty of Thunders, lightninges, and tempestes: with a sodein death of cattell.

Saterday. ON Saturdaye, a meane Wynter: Sommer verye hotte: A late Herueste, good cheape Garden hearbes, muche burnynge: plenty of Hempe, Flaxe, and Honye. Olde folke shall dye in moste places: Feuers and Tercians, shal greue many people, great muttering of warres: murders shalbe sodenly committed in many places, for light matters.

NOwe that I haue opened dyuers wayes, bothe for the learned and vnlearned, how weather to come at all tymes maye be well iudged and knowen. &c. I thoughte it meete, for farther knowledge therein, not to omitte here the naturall causes af sniche and so manye alterations of ayre. Loe, therefore orderlye they folowe.

Naturall

Naturall causes, conducyng to all the aforesayde, and fyrst of the Raynbow.

THe Rainbow is the shining and reboundynge of beames of light, that tourne to the contrary vapoure againe in the cloude. It declareth sometime rayne, and many times faire weather: when the one, and howe the other, is before opened.

Of Rayne.

RAyne is a colde vapour, an earthy humour, or fumosities, out of waters or earthe drawen vp by the vertue of the Sunne, to the neither parte of the middle space of the ayre there throughe colde thycked, then dissolued, thus engendred falleth on the earth.

Heare I leaue to speake of miraculous raynes, as Milke, Bloud, Flesh, Iron, wol. &c. For more satisfyinge in theese, read Plinius in the second boke. 58. Chapter.

quare lapides pluant, lege Pli Lib. 2. Capit. 44.

Of Froste and Dewe.

A Colde moyste vapoure, a litle waye drawen vp in the daye thorowe faynt heat of the Sunne, descendeth in the nighte, dissolued on the earth, there cõgelated, or resolued into water, the one called Froste, the other Dew. The laste is a sygne of fayre weather in the Spring or Haruest.

Ros estate, pruina hieme fit.

Of Snowe.

IT is a moyste vapoure, drawen vp to the myddle Region of the ayre, then thycked, and frosen into the body of a cloude: so congelated descendeth.

Nix humor modice concretus.

Of Hayle.

VVCloude resolued into water, in the fall congelated, maketh hayle. The hyer it commeth from aboue, and the longer it tarrieth in the ayre, the rounder hayle.

Grado, pluuia in discensu cõgelata.

Of wyndes.

Ventorū ergo materia, cálida & sicca exhalatio.

VVind is a multitude of dry exhalations, drawen vp from the earth: and aboue the earth enforced here and there.

Of earthquakes in the moste quiet time.

quemadmodū in nube tonitruum, sic in terra tremor.

PLentye of wyndes, entred into holes, cones, or caues of the earth, whiche absent from aboue the earth, causeth quietnes: the violent brustyng out of them (the earth closed again) is the earthquake: *Signum est futurorum bellorum.*

Tokens of earthquakes to come.

Signa terre motus.

A fyry cloude, appering in the element lyke a lytle Pyllar, is a token of earthquakes to come. The obscurity or darknes of the Sunne, without cloudes, and straungelye coloured, bloudy or otherwise, is a token of earthquakes.

Also when well water and others are troubled or salt, or infected by sauour. &c.

A great quietnes of ayre, by lande and sea, and chiefly the longe absence of windes.

Also straunge noyses harde, as clamoures of men, russhynge of harnesse, mournynges, lamentations. &c. All these haue ben obserued to signify earthquakes at hand.

Of Thunders and Lightninges.

Fulgetrū prius cerni, quā tonitrum audiri, cum simul fiant certum est, Pli. lib. 2. Capi. 56. contra Aristo.

THunder is the quenchinge of fyre, in a cloude. Or thunder is an exhalation hote and dry mixte with moisture, carryed vp to the myddle Region, there thicked and wrapped into a cloude: of this hote matter coupled with moysture, closed in the cloude groweth a strife, the heate beating, and breaking oute the sydes of the cloude with a thundring noyse: the fyre then dispersed, is the lyghtninge. Thus for the learned: *Tonitruum sonitus est, qui editur quando nubem rumpit halitus. Fulmen flamma uel repentinus est ignis, qui ex collisione nubium, aut ruptura existit.* Aristotel affirmeth ỹ lightning after the thunder, but the fyre doth fyrste appere, in that the sight is before the hearing. If this satisfie not, reade the seconde of his *Meteorom.* Here foloweth a note of lightninges.

There

There be thre kindes of Lightninges, dry, moist, and clere.

DRy do not burne but cleue, depart or deuide. Moyste burne not but alter colour. The Clere are of maruaiious natures. Full barels by it are emptied. It melteth mony in the purs, it breaketh the swearde, the purs and scaberde not pearyshed, yea ware in them vnmolten. Note.

Of the Cometes or flames in the nighte.

A Comete is a flame, working in a dry, hot, flymie exhalation, drawen vp to the highest part of the ayre. His mater or substaunce after it is brent, dispersed, prouoketh wyndes. uentorū causa

The naturall cause of the Sunne Eclipsed,

NOthing els is the Eclips of the Sun, but the direct puttinge the body of the Moone betwene the Sunne and the earth, or betwene our syght and the Sunne: whiche chaunceth onlye at the chaunge.

A Corollarie.

BY this gather the darkenesse at Christes death, not to stande by naturall Eclipticall cause: but by supernaturall, or myracle. For it was at the ful Mone, the scriptures witnes, which enforced *Dionisius Areopagita*, at the time of his passiō, to speke thus. *Aut deus naturę patitur, aut mundi machina dissoluitur.* Miracle.

The cause of the Moone Eclipsed,

THe Sun beyng in the contrary poynt to the full Mone, enforceth the shadowe of the earth, then directlye put betwene the Sun and the Mone, toward the Mone, hydinge more or lesse of the Mone, as she differeth from the Ecliptical. Som obserue pestilent plagues, soden batail, great dearth, to ensue these Eclypses whyche all I desire God to auerte from his chosen. Manye other thinges by this *Eclyps* are gathered, as *Longitudes* of countries: the *quantity* of the Sun, cōtaining the bignes of thearth, 162. times: the Vniuersalis est Eclipsis Lune. Non semper in nouilunio, sed in ca, & cauda.

Compasse of the earth 21600. miles, whose thicknesse, according to Archimedes rule is 6372. miles, and eight eleuenthes of a myle.
The quantity of the Mone is the 49 part of the earth.
The Sunne containeth the globe of the Mone 7000 times.

Omniū planetarū ad terrā magnitudo.

Saturnus comprehendeth the bignes of the earth 91 times, Iupiter 91 times, Mars ones and ten sixtenthes. Venus the 37. parte. Mercurius, one 2000 part of the earth.
Note here, that Alfraganus affirmeth the least fixed sterre perfectly seene as bigge as the whole earth.

Dimetiens ☉ ad terre dimetientem rad 2

HEc non erunt admirationi, si globi capacitatē ex longitudine diametri quesieris. Cōtinet enim solis dimetiens terre dimetientem quinquies & semissem. Estque proportio diametri solis ad terre dimetientem, que est numeri vndecim ad duo, quintupla sesquialtera. Cubus solis mille trecentum vnam & triginta partes tales continet,

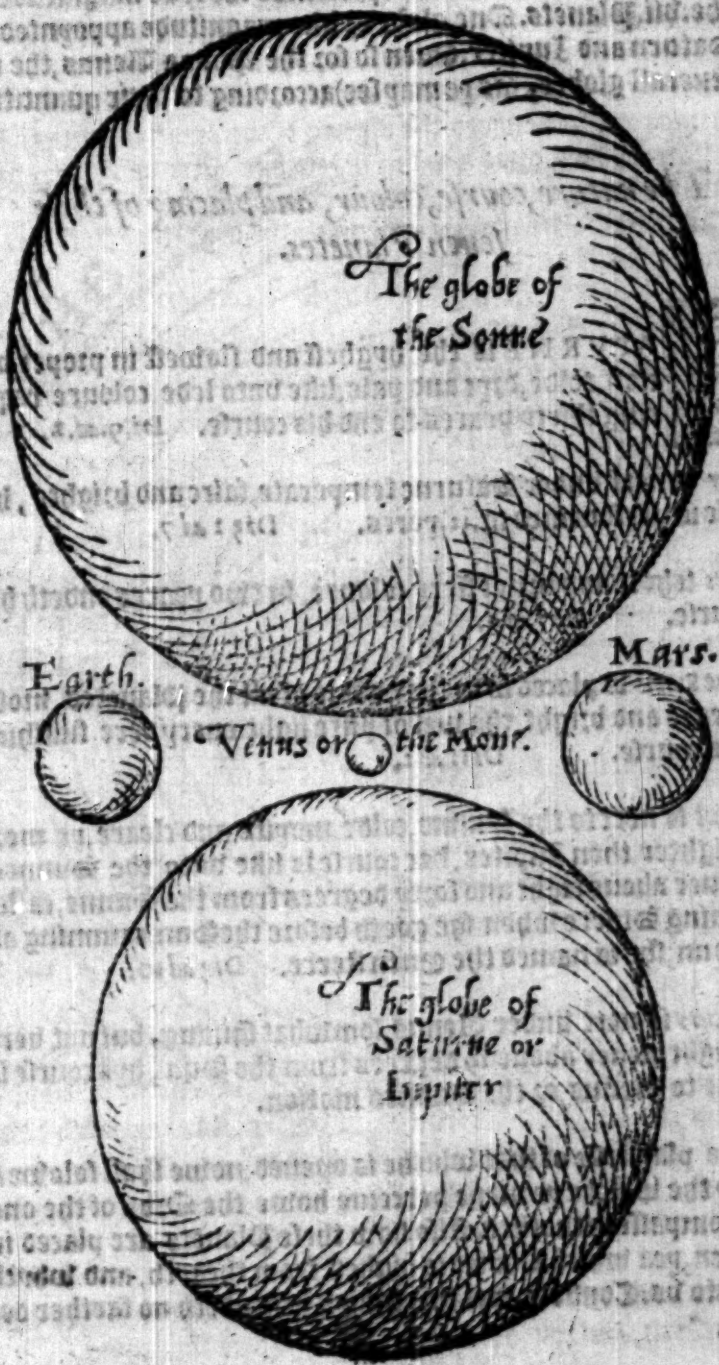
Cubus ☉ 1331 Terre 8

cuiusmodi terre cubus octanus complectitur. Cubus enim numeri vndecim, est mille trecentum vnum & triginta. Cubus vero binarii, qui est terre, octo. Subducto quoties id fieri potest, minore cubo qui est terre, a maiore qui est solis cognoscitur cubi ad cubū proportio, & quanto Sol maior, terra sit Inuenimus ergo octo centies, sexagies sexies, in mille trecentum vno & triginta.

Dimetiēs terre ad diam. ☽ 17. ad 5 Cubus terre 4913. Cubus ☽ 125.

Terre Diametros Lunæ dimetientem complectitur ter, & duas eius diametri portiones quintas: estque ea proportio dimetientis terre ad Lunæ diametrum, que est septendecim ad quinque tripla superbi partiens quintas. Cubus numeri septendecim est quater mille nongenta tredecim. Cubus numeri quinque est centum viginti quinque. Maiore cubo per minorem distributo, reperimus numerum centū vigintiquinque, tricies nouies in quater mille nongentis tredecim: quod paululum a superioribus observationibus differt.

The quantities, or rather true proportion of all the planets vnto the earth, ocularly demonstrated by figure following.



Mercury is but a poynt in respect of these Quantities.

By theese fyue Globes are represented the true magnitudes of the. vii. Planets. One globe or like magnitude appoynted for Saturn and Iupiter. Euen so for the Mone & Uenus, the rest haue seuerall globes, (as ye may see) according to their quantities.

The nature, course, colour, and placing of these seuen Planetes.

♄ SATVRNE is the hyghest and slowest in proper motion, colde, drye and pale, like vnto lede coloure requiring thirty yeares to end his course. Di. 9. ad. 2.

♃ IVpiter is next vnder Saturne temperate, faire and bryghte, hys course is perfourmed in. 12. yeres. Di 3 2 ad 7.

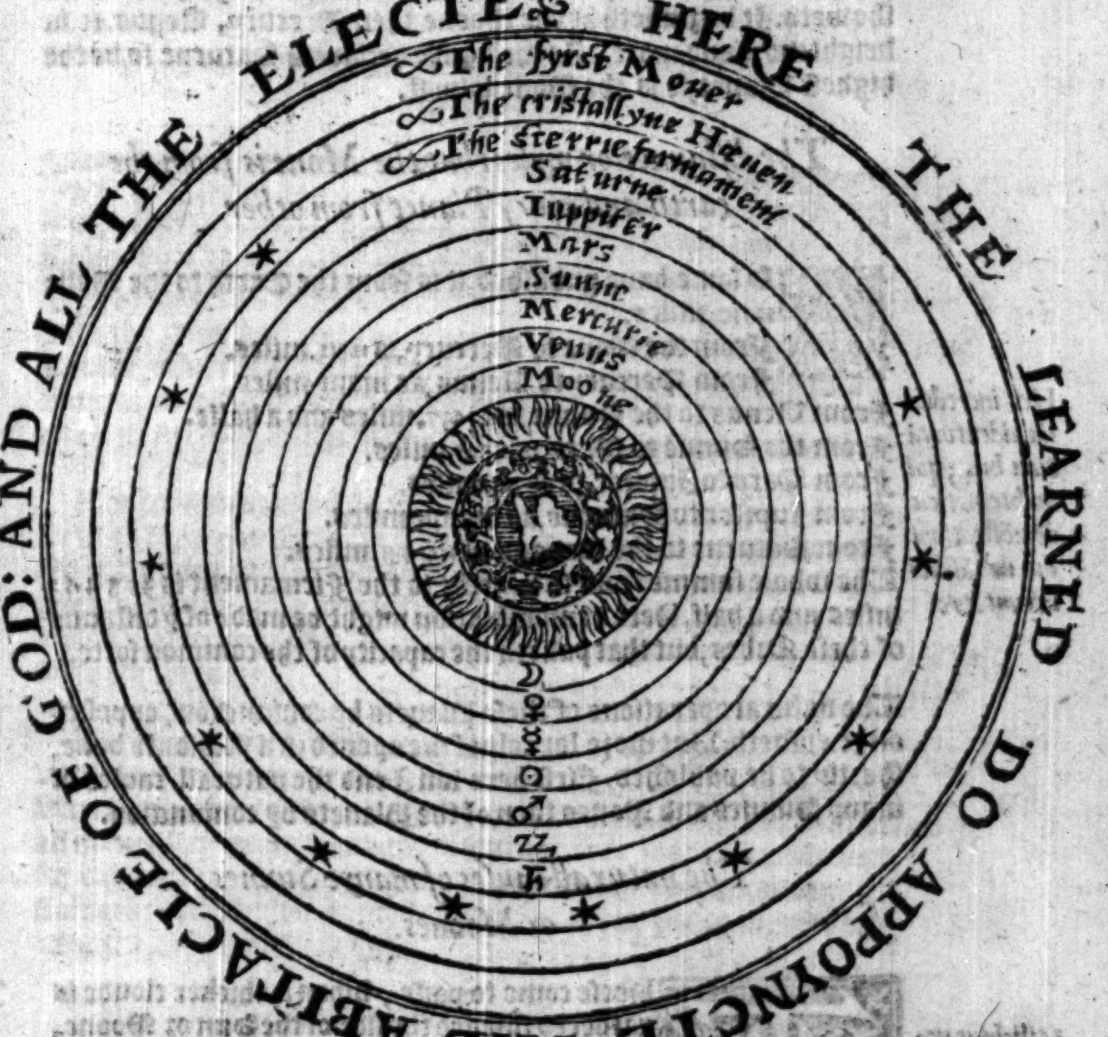
♂ MArs is hote and dry of fiery coloure, in two yeares endeth hys course. Di 7 ad 6.

☉ THe Sunne is placed is in the middle of all the Planetes, moste cleare and bright, the wel of pure light: euery yere finishing his course. Di 11 ad 2.

♀ VEnus is nexte to the Sunne, colde, moyste and cleare, ye more bryghter then Iupiter, her course is like vnto the Sunnes, neuer aboue eight and forty degrees from the Sunne, called the Morning Starre when she goeth before the Sun, comming after the Sun, she is named the Euen sterre. Di 3 ad 10.

☿ MErcury is next vnder Uenus, somwhat shining, but not very bright, neuer aboue 29 degrees from the Sun, hys course is like to Uenus, or the Sunnes motion.

For more playnesse of that whiche is opened, nowe shall folowe a figure by the whiche ye maye perceiue howe the Orbe of the one Planet compasseth thother. Also how these Planets are placed in the heauen, yea which Planet is highest from thearth, and whych nerest vnto vs. Consider wel this figure, so needeth no farther declaration.


THE LEARNED DO APPOYNCTE THE ABITACLE OF GOD: AND ALL THE ELECTE & HERE
The fyrst Mouer
The cristallyne Heuen
The sterrie firmament
Saturne
Iuppiter
Mars
Sunne
Mercurie
Venus
Moone
☽
☿
♀
☉
♂
♃
♄

Ye may here behold first the Elementall part subiect vnto alteracion, consisting of the foure Elementes, firste Earthe and Water, whereon we are, then ayre and Fire. Then the other Ethereall part (which the Phylosophers call quinte essence) containeth the x. orbes, the bigger compasseth the nexte lesser, as the Figure before showeth. It beginneth at the Moone, then Mercury, Venus. &c. in height more and more. As the figure declareth Saturne to be the highest Planet, so is the Mone lowest.

The distaunce or myles that the Mone is from the earth, and euery Planet from other.

As some haue published, it is from the Earth to the Mone 15750. miles.
From the Mone to Mercury, is 12812. miles.
From Mercury to Venus, as many miles.
From Venus to the Sunne, is 23437. miles and a halfe.
From the Sunne to Mars, is 15725. miles.
From Mars to Iupiter, is 78721. miles.
From Iupiter to Saturne, as manye miles.
From Saturne to the firmament 120485. miles.
The whole summe from the earthe to the Firmament is 358463 miles, and a half. Here demonstration might be made of ẏ distauns of these Orbes, but that passeth the capacity of the common sorte.

Hec incredibilia uidentur tantum hiis, qui mahtematicis demõstrationibus non assueuerunt. &c.

The natural operations of these Planets by coniunction, opposition &c. ensueth: But more largely of me opened in a pleasante boke, shortly to be published. First here wil I end the naturall causes of many Sunnes and Mones then of the Planets by coniunction.

The naturall causes of manye Sunnes, or Moones.

Milichius noteth the king of Pole to haue sene 6. Sunne & oues.

Theese come to passe, when a thicker cloude is gathered toward the side of the Sun or Moone, in the which the broken beames of the Sunne doo leaue the fashyon and verye forme of that Sun. Thus as foloweth, sayeth Plinius in hys seconde booke of the historye of nature, and. 31. chapter. No mo Sunnes are perceyued in oure tyme then thre: and they are neuer sene, either

abone or beneth the Sunne, but on the sydes: neuer in the night, but only at the Sunne ryſing, or going downe.

VVhat is to be choſen or auoyded vnder euery aſpect of the Moone, with her ſignification in the twelue Signes, touchinge the ſame.

THe coniunction, quadrature or oppoſition of Saturne with the Moone, cauſeth an euill vnluckye daye for all matters. Leaue therfore to haue to doo any manner waye: nothynge ſhall proſpere, or come well to paſſe then attempted. Yet the Sextile or Trine of Saturne, with the Moone, declareth a conuenient tyme to til, delue or dygge, to ſowe, to laye foundations, to erect or repaire houſes, yea a meete tyme to obtayne ſutes of fatherly farmours. The Moone in Capricornus or Aquarius, bringeth this later effect of the ſextile and trine. ♄ ☌ ☐ uel ☍ cum ☽ ♄ ✶ ☌ △ cum ☽ ☽ in ♑ uel ♒

The coniunction, ſertile, trine, quadrature or oppoſition of Iupiter with the Moone, ſheweth a fortunate daye, chiefly to obtaine ſutes of Kynges, noble Princes, Prelates &c. of Lawyares and Religious perſones: and a meete tyme to ſtudy, to iourney, to take an honeſt matter in hande. The moone in Taurus, in Leo or Sagitarius, ſheweth the ſame. ♃ ☌ ✶ △ ☐ uel ☍ cum ☽ ☽ in ♉ ♌ uel ♐

The coniunction, ſertile, trine, quadrature or oppoſition of Mars with the Moone, warneth thee not to match thy ſelf that daye with warriours: notwithſtanding very good, and moſte mete to fynyſhe all maner firy workes: naught to iourney: yet mooſte conuenient for valiaunt captaynes to worke their feat, to leade, encourage or ſtomacke their ſouldiers: moſte vnmete to treat peace, to take ſeruauntes, or to ſeke frendſhip. ♂ ☌ ✶ △ ☐ or ☍ cum ☽.

The coniunction, quadrature or oppoſition of the Sunne with the Moone, declareth a very vnhappy daye for all matters: therefore attempt nothyng, ne any maner ſute: neyther plante, builde, ne iourney. Yet the ſertile and trine are verye fortunate, ſpeciallye to obtayne ſute of kynges, Princes and other Nobles. The Moone in Aries enforceth the effect of this latter parte. ☉ ☌ ☐ uel ☍ cum ☽. ☽ in ♈

♀ ☌ ✶
△ □ uel ☍
cum ☽

The coniunction, sextile, trine, quadrature or opposition of Venus with the Moone, causeth a day moste apt to obtayn all suites of women: good to woo, to attempte mariage, and to folowe all maner pleasures, and pleasaunte pastymes: not vnmeete to hyre seruauntes, to let bloude. &c. The Mone in Libra or Pisces, prouoketh the lyke.

☿ ☌ ✶
△ □ uel
☍ cum ☽

The Coniunction, sextile, trine, quadrature, or opposityon of Mercury with the Mone, promiseth a fortunate happy day, to bye and sell: very good to enter children in Liberall artes: an apt tyme for the versifiare: good to vse marchaundyse, to iourney, to sende embassage, to geue accomptes and suche like.

☽ in ♊ ♋
uel ♍

The Mone in Gemini, Cancer or Virgo, enclyneth euen to the same afore sayde.

☽ cum ☊

The Mone with the Dragons head, sheweth a lucky day for all matters: with the Taile contrary.

Nowe ensueth a Table shewing what signe the Moone is in, and shall be for euer, declaryng also the meetest tyme to let Bloud, to Pourge, and to Bathe.

The Table hath at the head Seuen titles. The fyrst months: the seconde Dayes: then the Prime: the twelue Signes: the titles to let Bloud, to Purge, and to Bathe.

Here it is to be noted, that those daies are good for these purposes, whiche be signed with this letter g: and those euell dayes, that are noted with B.

This Table declareth for euer, in what Signe the Moone is or shall be at any daye in the yeare. It serueth also very well to let Bloud, to Purge, and Bathe.

Monethes.	Daies.	Prime.	The 12. Signes.	To let Bloude.	To Purge.	To Bathe.
Febr. Nouē.	1	3	Aries.	G	B	G
Marche.	2		Aries.	G	B	G
	3	14	Taurus.	B	B	B
Decembre.	4	6	Taurus.	B	B	B
	5		Gemini.	B	G	
Aprill.	6	17	Gemini.	B	G	
	7	9	Cancer.		G	G
Maie.	8	1	Cancer.		G	G
	9		Cancer.		G	G
	10	12	Leo.	B	B	G
	11	4	Leo.	B	B	G
Iune.	12		Virgo.	B	B	B
	13	15	Virgo.	B	B	B
Iuly.	14	7	Libra.			
	15		Libra.			
	16	18	Scorpius.		G	G
	17	10	Scorpius.		G	G
Auguste.	18	2	Scorpius.		G	G
	19		Sagittarius.	G	-	G
	20	13	Sagittarius.	G		G
	21	5	Capricornus	B	B	B
Septembre.	22		Capricornus	B	B	B
	23	16	Aquarius.			G
Ianua. Octo.	24	8	Aquarius.			G
	25		Pisces.		G	G
	26	19	Pisces.		G	G
	27	11	Pisces.		G	G

Seke out vnder the titles of the monethes, the name of the month, whose day you must loke out right against the moneth, vnder the title of daies: and ther beginne to tell downewardes, *one, two, thre. &c.* to the ende, if it so require, and then from the begynninge, if neade be, vntill you haue reconed the numbre of the day that you seke. Loke what numbre it falleth vpon in this table, vnder the title of *dayes*: that nũbre kepe in mynde. Then seke vnder the title of the prime, the golden numbre for that yeare: right against that leftwarde, vnder the title of *daies*, begyn to tel downwardes, *one, two, thre. &c.* vntyll you haue reckoned the nũbre which you did kepe in minde. Against that towardes your ryght hande, vnder the title of *sygnes*, is the signe wherein the *moone* shalbe that daye. Euen then vnder the other titles, ye shall fynde in ryghte order, for *letting bloude*, for *pourging* and *bathing*, accordynge as they be noted with G, whyche is good, and B signifying bad. Ensample.

The firte daye of *Marche* in the yeare of oure Lorde 1555. I desire to knowe what celestiall signe the *moone* dothe then occuppye. I fynde firste the name of the *moneth*, that is *Marche*: and the daye as foloweth, in the nexte order of this table. I begin here to tel right against my moneth, at the Figure of 2. sayinge *one, two, thre. &c.* so I haue at the end, and compt of six daies this figure 7. which I kepe in mind. Now I must seke out the *golden numbre* for the yere aforesaid, vnder the title of the prime here, that is 17. against the which on the lefte side is 6. There you must begynne again to compt, *one, two, thre &c.* vntil you come vnto your numbre 7. So on your righte hande in the rowe, or order, you shall see *Virgo*, the celestiall *Signe* that the *moone* is in. and after that these thre letters B whiche declare badde or euell to let *Bloude*, to *Purge* or *Bathe*, agreable to the titles in the head. g. there bad signifyed good.

For as muche as letting of *Bloude*, *Pourging*, and *Bathyng*, *Inunda-cions*, *Fludder*, *Timber falling*, *Sowyng*, *Plantynge*, *graffyng*, *Cuttynge &c.* depende chiefly on the *Signe* wherein the *Moone* is, which I haue euen before plainly opened, I thought it mete to haue thẽ nowe orderly touched, as foloweth.

A conducible note for letting Bloud.

LEt bloude at no tyme without greate cause, for it bryngeth weakenes and many infirmities. If ye do, se it be after good digestion, and fasting, in a fayre temperate daye. Beware before of al maner exercise, bathinges, watchinges & carnall copulacion. &c. After vse fyne meates, of lyght digestion, abstaynynge from all the aforesaid, vntil the fourth day.

Malum minui uel purgationibus uti, tempore caloris, propter defectum humoris

These *signes* are moost daungerous for bloud letting, the *moone* beynge in them, *Taurus*, *gemini*, *Leo*, *Virgo* and *Capricornus*, wyth the laste halfe of *Libra* and *Scorpius*. The reast are all good, so the *moone* beare no dominion in that membre whiche ye cut, as foloweth.

Ill to let blud in ♉ ♊ ♌ ♍ ♑

Beholde the Figure.

The Dominion of the Moone in mans body.

Aries.	THE	Head and face.
Taurus.		Necke.
Gemini.		Armes, handes, shoulders.
Cancer.		Brest, stomacke, rybbes.
Leo.		Heart, backe.
Virgo.		Bowels, belly.
Libra.		Raynes, nauill, buttockes.
Scorpius.		Secreat membres.
Sagittarius.		Thyes.
Capricornus.		Knees.
Aquarius.		Shynnes, legges.
Pisces.		Fete.

From the *change* to the *first quarter*, a mete time to let yog men bloud.

From the *first quarter* to the *full*, good for middle age.

From the *full* to the *last quarter*, apt for aged folke.

From the *last quarter* to the *change*, best for olde men.

Signes mete for the complexions.

Aries } For the *fleumatike*: the head, and thyes excepted.
Sagittarius }

Libra. } For *melancholike*: buttockes and legges excepted.
Aquarius. }

Hec diligentissime obseruare oportet solertem Medicum, nisi maiora pericula cogant.

Cancer. } For *cholerike*: brest, membres, and fete excepted.
Scorpio. }
Pisces. }

For the *Sanguine*, all be apt that tofore are named good.

In the *spring tyme*, let bloud at the ryght syde.

In Haruest tyme, at the left syde.

The

The learned Phisitian wyll consyder, besyde all that is sayde, the Coniunctions, Oppositions, and Quadrat aspectes of the Planetes: wyth many other thynges Astronomical, most necessary, both in bludletting, pourging, bathing. &c.

For to take purgation, and to bathe.

The metest time to take purgations &c. is neither in hote, nor colde dayes: that is from the tenth of Marche, to the twelfthe of Iune.

Further by rules Astronomical, it muste be perfourmed when the Moone is in colde, moist, and watry Signes, as Cancer, Scorpius and Pisces: comforted by aspectes and radiations of Planets, fortifying the vertue of the body expulsiue.

The Moone in Aries, Taurus, and Capricornus, naught. One cause of vomiting the purgation is if the Moone haue aspect to any planet retrograde.

The Moone in these Signes folowyng, verye good to bathe: Aries, Leo, Sagittarius, Cancer, Scorpius, and Pisces.

These ensuyng are euil to bath: Taurus, Virgo, & Capricornus.

Of Inundations or fluddes of tymber fallynge, Sowynge, planting, graffyng, heare clipping, shaumg, and geldyng.

The flud is biggest at the full: because then dispersyng her vertue, she fylleth all places with moysture. By common experience, ioyned with learnyng I knowe, at the ful the Moone lodeth all bodies with humours: and so are emptied, growynge to the change. Of this, some gather the fall of timbre at the chaunge, more to the purpose then other tymes: wantyng then superfluous moysture, the cause of putrefaction. *Omnis putredo ab aqueo humido ortum habet.* Schoner willeth from the. 15. daye vnto the. 22. daye of the Moone, trees to be felled, and that after Mydsommer to Ianuary. So tymbre is strong, sound, and voyde of wormes.

To Sow, Taurus, Cancer, Virgo, Libra, and Capricornus are best, in the increase of the Moone.

To Plante or Graffe, is best when the Mone hath her being in any fired Signe, either in Taurus or Aquarius, in the encrease.

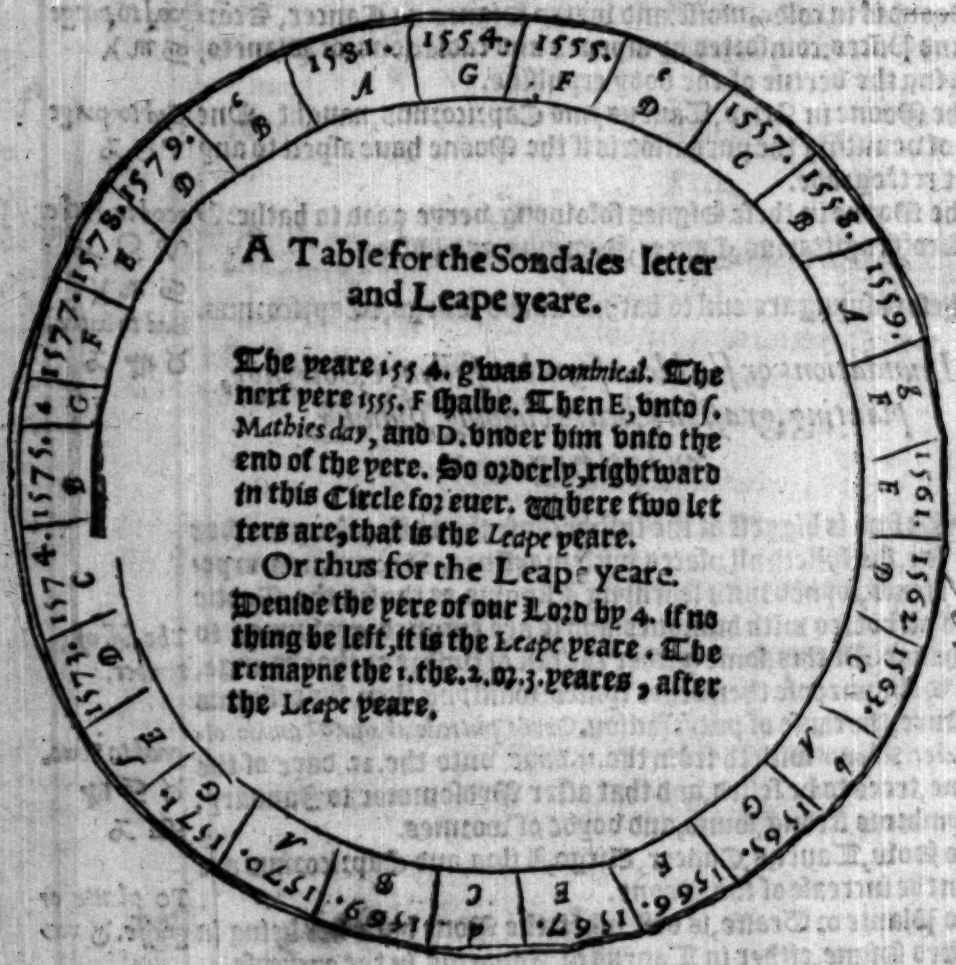
Heare cut groweth wel, the Moone encreacing, being in Taurus, Virgo or Libra.

Cuttynge

Cutting, Shauing, Clipping, in the wane causeth baldnes, what is then cut, groweth litle. *Caluitium prohibet oleum Tartari.*

The best tyme of *Cutting* is in *Cancer, Scorpio*, or *Pisces* in the wane.

These two rounde Tables that now ensue, conduce to the rest folowyng.



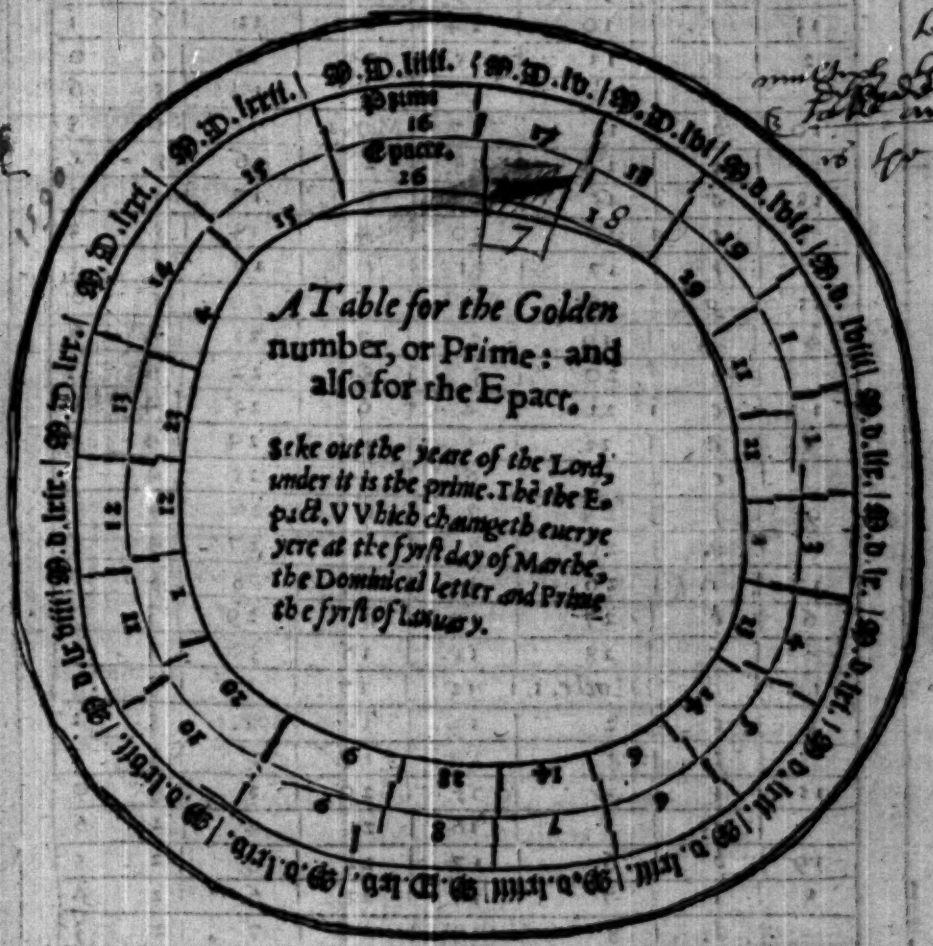
A Table for the Sondales letter and Leape yeare.

The yeare 1554. g was *Dominical*. The next yere 1555. F shalbe. Then E, vnto *S. Mathies day*, and D. vnder him vnto the end of the yere. So orderly, rightward in this Circle for euer. Where two letters are, that is the *Leape* yeare.

Or thus for the Leape yeare.

Deuide the yere of our Lord by 4. if no thing be left, it is the *Leape* yeare. The remayne the 1. the. 2. or. 3. yeares, after the *Leape* yeare.

When ye haue gone round about the yeres, these two Tables beginne agayne.



The prime.	The sondaies letter.	The first Lent sonday.	Easter day.	Rogation.	whitsontide.	Betwixt whitsond. & midso.
16		Februarie.	Marche.	April.	Maye.	wek. daies
5	d	8	22	26	10	6 3
	e	9	23	27	11	6 2
13	f	10	24	28	12	6 1
2	g	11	25	29	13	6 0
	A	12	26	30	14	5 6
10	b	13	27	May. 1.	15	5 5
	c	14	28	2	16	5 4
18	d	15	29	3	17	5 3
7	e	16	30	4	18	5 2
	f	17	31	5	19	5 1
15	g	18	April. 1	6	20	5 0
4	A	19	2	7	21	4 6
	b	20	3	8	22	4 5
12	c	21	4	9	23	4 4
1	d	22	5	10	24	4 3
	e	23	6	11	25	4 2
9	f	24	7	12	26	4 1
	g	25	8	13	27	4 0
17	A	26	9	14	28	3 6
6	b	27	10	15	29	3 5
	c	28	11	16	30	3 4
14	d	March. 1.	12	17	31	3 3
3	e	2	13	18	June. 1.	3 2
	f	3	14	19	2	3 1
11	g	4	15	20	3	3 0
	A	5	16	21	4	2 6
19	b	6	17	22	5	2 5
8	c	7	18	23	6	2 4
	d	8	19	24	7	2 3
	e	9	20	25	8	2 2
	f	10	21	26	9	2 1
	g	11	22	27	10	2 0
	A	12	23	28	11	1 6
	b	13	24	29	12	1 5
	c	14	25	30	13	1 4

1593

1590

The vse of this Table appoynted for the moueable Feastes.

THis Table conteineth in the firste title the Prime: in the second, the Dominical letter: in the third, Lent, in the fourth Easter day, in the fifthe, Rogation daye, in the sixt, Whitsonday: in the seuenth, how manye wekes and dates are betwene Whitsondaye and Midsomer. Whiche all appeare by their titles.

Ye shal consider by the title round Table before put forth, what numbre the Prime is that yeare, whereof ye require to knowe all these aforesaide, and seke that numbre vnder the firste title of thys Table ensuyng. Then seke vnder the second the Dominical letter next after the Prime for that yere: which title ensueth the Prime. Directly against the same Dominical letter, towardes your ryghte hand, in the same line, ye shall finde vnder the titles, what moneth and day, euery one of these aforesayde shall happen.

Ensample.

I would knowe this yeare of our Lord. M. D. Lv. these moueable feastes: the firste Lent Sondaye, Easter daye, Rogation dayes, Whitsonday, and how manye wekes betwixte Whitsondaye, and Midsomer daye. Firste I finde the Prime this yeare. xvii, whyche xvii. I loke out vnder the title of Prime in the Table before. Then I seke in the next order, and after the Prime, for the Dominical letter that yeare. Nowe in ryghte order, accordinge to the titles, I synde the thirde of Marche to be the fyrste Lent Sonday: the. xiiii. of Aprill Easter day: the. xix of May, Rogation: the. ii. of June, Whitsonday and. iii. wekes, and one day betwixt Whitsondaye, and Midsomer daye.

Thus for euer.

Howe to knowe the age of the Moone: then the chaunge, and quarter for euer.

FIrst learne the Epact (as I haue instructed) for that yeare ye seke to knowe the age of the Moone, then recken howe many dayes is past of that moneth, which day ye desire to knowe the age. Put that noumbre to the Epact. Then begin at Marche, and recken for euerye moneth from hym orderlye one, vntill your said day, including both the monthe of Marche, and also the moneth of your sayd daye. Adde all theese dayes vnto your former numbre: putting away as many .xxx. dayes, as ye fynd. The rest is the age of the Moone. The age found, the Chaunge is knowen. If ye adde .vii. daies to the chaunge ye haue the fyrst quarter: then .7. dayes and somewhat more, sheweth the Full: and so to it addinge .7. and more, bringeth the Last quarter: thus by 7, vnto the Newe Moone.

Ensample.

The .i. day of January, the yeare then being M.D.Lv. I desire the age of the Moone, I fynde the Epact vntill Marche ensuinge to be .xxvi. that added vnto .i. maketh .xxvii. then a .xi. for the monthes from Marche to January, including both Monethes, bringeth .xlvii. now .xxx. pulled away, leueth .xvii. the age of the Moone.

Nowe ensue two perfect Tables, declaring the true Hour and minute of Ebbing and Flowinge, in moste coastes of England.

Quin South-ampton. Ports-moth.		Redban Aberdē		Graues ende.		Dūdee. S. And.		Age of the Moon	London Tinmot Hertle pole.		Ber-wyke.		Erith. Les by. Dūbar.		Falmot	
South.		S b w.		S S w.		S w b S			S w.		S w b w		w S w		w b S.	
H.	M.	H.	M.	H.	M.	H.	M.	☽	H.	M.	H.	M.	H.	M.	H.	M.
12	48	1	33	2	18	3	3	1	3	48	4	33	5	18	6	3
1	36	2	21	3	6	3	51	2	4	36	5	21	6	6	6	51
2	24	3	9	3	54	4	39	3	5	24	6	9	6	54	7	39
3	12	3	57	4	42	5	27	4	6	12	6	57	7	42	8	27
4	0	4	45	5	30	6	15	5	7	0	7	45	8	30	9	15
4	48	5	33	6	18	7	3	6	7	48	8	33	9	18	10	3
5	36	6	21	7	6	7	51	7	8	36	9	21	10	6	10	51
6	24	7	9	7	54	8	39	8	9	24	10	9	10	54	11	39
7	12	7	57	8	42	9	27	9	10	12	10	57	11	42	12	27
8	0	8	45	9	30	10	15	10	11	0	11	45	12	30	1	15
8	48	9	33	10	18	11	3	11	11	48	12	33	1	18	2	3
9	36	10	21	11	6	11	51	12	12	36	1	21	2	6	2	51
10	24	11	9	11	54	12	39	13	1	24	2	9	2	54	3	39
11	12	11	57	12	42	1	27	14	2	12	2	57	3	42	4	27
12	0	12	45	1	30	2	15	15	3	0	3	45	4	30	5	15
12	48	1	33	2	18	3	3	16	3	48	4	33	5	18	6	3
1	36	2	21	3	6	3	51	17	4	36	5	21	6	6	6	51
2	24	3	9	3	54	4	39	18	5	24	6	9	6	54	7	39
3	12	3	57	4	42	5	27	19	6	12	6	57	7	42	8	27
4	0	4	45	5	30	6	15	20	7	0	7	45	8	30	9	15
4	48	5	33	6	18	7	3	21	7	48	8	33	9	18	10	3
5	36	6	21	7	6	7	51	22	8	36	9	21	10	6	10	51
6	24	7	9	7	54	8	39	23	9	24	10	9	10	54	11	39
7	12	7	57	8	42	9	27	24	10	12	10	57	11	42	12	27
8	0	8	45	9	30	10	15	25	11	0	11	45	12	30	1	15
8	48	9	33	10	18	11	3	26	11	48	12	33	1	18	2	3
9	36	10	21	11	6	11	51	27	12	36	1	21	2	6	2	51
10	24	11	9	11	54	12	39	28	1	24	2	9	2	54	3	39
11	12	11	57	12	42	1	27	29	2	12	2	57	3	42	4	27
12	0	12	45	1	30	2	15	30	3	0	3	45	4	30	5	15
North.		N b E		N n E		N e b N		☽	N E		N e b E		E n E		E b N.	

Foy Lim. Hüber. weimot. Dertm. Plimot.	Bristo.	Milfo. Bridg. water.	Portl. Peter. porte.	Age of the Moone.	Orkn. Pole. Orwel.	Diep. Lux. Lenoys.	Boloig. Douer. Harwick Yarmot.	Calice.
East.	EbS.	EsE.	SebE		SE	SebS	SsE	SbE
H. M.	H. M.	H. M.	H. M.	☽	H. M.	H. M.	H. M.	H. M.
6 48	7 33	8 18	9 3	1	9 48	10 33	11 18	12 3
7 36	8 21	9 6	9 51	2	10 36	11 21	12 6	12 51
8 24	9 9	9 54	10 39	3	11 24	12 9	12 54	1 39
9 12	9 57	10 42	11 27	4	12 12	12 57	1 42	2 27
10 0	10 45	11 30	12 15	5	1 0	1 45	2 30	3 15
10 48	11 33	12 18	1 3	6	1 48	2 33	3 18	4 3
11 36	12 21	1 6	1 51	7	2 36	3 21	4 6	4 51
12 24	1 9	1 54	2 39	8	3 24	4 9	4 54	5 39
1 12	1 57	2 42	3 27	9	4 12	4 57	5 42	6 27
2 0	2 45	3 30	4 15	10	5 0	5 45	6 30	7 15
2 48	3 33	4 18	5 3	11	5 48	6 33	7 18	8 3
3 36	4 21	5 6	5 51	12	6 36	7 21	8 6	8 51
4 24	5 9	5 54	6 39	13	7 24	8 9	8 54	9 39
5 12	5 57	6 42	7 27	14	8 12	8 57	9 42	10 27
6 0	6 45	7 30	8 15	15	9 0	9 45	10 30	11 15
6 48	7 33	8 18	9 3	16	9 48	10 33	11 18	12 3
7 36	8 21	9 6	9 51	17	10 36	11 21	12 6	12 51
8 24	9 9	9 54	10 39	18	11 24	12 9	12 54	1 39
9 12	9 57	10 42	11 27	19	12 12	12 57	1 42	2 27
10 0	10 45	11 30	12 15	20	1 0	1 45	2 30	3 15
10 48	11 33	12 18	1 3	21	1 48	2 33	3 18	4 3
11 36	12 21	1 6	1 51	22	2 36	3 21	4 6	4 51
12 24	1 9	1 54	2 39	23	3 24	4 9	4 54	5 39
1 12	1 57	2 42	3 27	24	4 12	4 57	5 42	6 27
2 0	2 45	3 30	4 15	25	5 0	5 45	6 30	7 15
2 48	3 33	4 18	5 3	26	5 48	6 33	7 18	8 3
3 36	4 21	5 6	5 51	27	6 36	7 21	8 6	8 51
4 24	5 9	5 54	6 39	28	7 24	8 9	8 54	9 39
5 12	5 57	6 42	7 27	29	8 12	8 57	9 42	10 27
6 0	6 45	7 30	8 15	30	9 0	9 45	10 30	11 15
VVest.	WbS.	WsW.	WbW.	☽	NW	NWbN	NNW	NbW

The vse of these Tables.

When you wil know the full Sea, seke out the name of the place, where you desire the full water, in the heade of the Tables: Or learne the poyntes of the Compasse there noted: Or if you lyste, knowe of some Mariner, what Moone maketh a full Sea there: a South west or South Moone. &c. Then the age of the Moone founde vnder the place or poynte of the compasse, sheweth in right order the houre and minute of the ful water. The Ebbe then is manifest.

Ensample.

I desire to know the Full water at London bridge, the yeare of our Lord M.D.Lv. the. vi. day of February. I find by rules before put forth, the 6. day of February, the yere aforesayde, the Moone to be. xiiii. daies old. I see also vnder the title where London is S.W. whiche letters signifye that a South west Moone maketh a Full Sea there: and that is at. ii. of the clock, and. xii. minutes past. This is wel perceiued in the first Table before put fourthe, if you runne downe to the. xiiii. day of the age of the Moone, vnder London title.

A Note of the hour, of the day and night.

The ingenius may gather here about the houre of the day and night, by the Mone: consideration had of the poyntes in those Tables of tides before noted. For the houre is orderly put vnder the poyntes of the compasse.

Euery parte or poynte containinge $11\frac{1}{4}$ degrees and $\frac{1}{4}$: thys Compasse is well figured here about the Centre in the instrumente folowyng for the nyght houre, because ye maye by it haue a delectable large vse of theese tide Tables.

How by the first of the Tide Tables, ye may redily know when the Mone cometh vnto the South, when she riseth and setteth: with her continuaunce on the earth.

Seke the age of the Moone (as is opened) then resort to the fyrst Tide table loking out that age there: So vnder ỳ South poynt in right order the houre appeareth, when she cometh vnto the South. Then hath she spent half that arcke that the Sonne would haue had in that Signe, which pulled away, sheweth the rysinge: that half arcke also added to her coming vnto the South declareth her goinge downe. The arcke then that the Sunne wold haue had in the Signe, is her continuaunce on the earth.

A table at all times plainly and briefly declaring, the breke of the day: the hour and minute of the Sunne rysinge, the iust length of the day: the length of the nyght also, the very minute of the Sun setting: and the Twylight.

Monethes	Dayes.	Break of the day. H. M.	Sunne rysinge. H. M.	Lengthe of the day H. M.	Lēgthe of the night H. M.	Sunne settinge. H. M.	Twylyghte. H. M.	Dayes.	Monethes.	Minutes to be added to the Legth of the daye.
ber.	10	6 0	8 11	7 37	16 23	3 49	6 0	10	Dec.	1
	20	5 58	8 10	7 40	16 20	3 50	6 2	1		2
Ianu.	1	5 54	8 0	8 0	16 0	4 0	6 6	20	Nouē.	3
	10	5 44	7 49	8 21	15 39	4 11	6 16	10		7
	20	5 35	7 34	8 52	15 8	4 26	6 25	1		5
Febr.	1	5 15	7 13	9 34	14 26	4 47	6 45	20	Octo.	5
	10	5 0	6 56	10 8	13 52	5 4	7 0	10		8
	20	4 50	6 36	10 47	13 13	5 24	7 10	1		5
Mar.	1	4 20	6 19	11 22	12 38	5 41	7 40	20	Septē.	13
	0	4 0	6 1	11 58	12 2	5 59	8 0	10		16
	20	3 40	5 41	12 37	11 23	6 19	8 20	1		13
Apr.	1	3 8	5 18	13 23	10 37	6 42	8 52	20	Aug.	12
	10	2 40	5 1	13 57	10 3	6 59	9 20	10		15
	20	2 10	4 43	14 33	9 27	7 17	9 50	1		11
May.	1	1 30	4 25	15 9	8 51	7 35	10 30	20	Iul.	13
	10	0 30	4 12	15 35	8 25	7 48	11 30	10		13
	20	Cōtinu-	4 0	15 59	8 1	8 0	Day con-	1		7
Iu-	1	all day.	3 51	16 17	7 43	8 9	tinuall.	20	ne.	3
	10		3 48	16 23	7 37	8 12		10		
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.			

The vse of this table.

Consider the Moneth and day, that ye require any of the toforesayd: and seke in this Table that same under the title: procede in ryght ordre, so ye haue your purpose. If the uery day be not founde, take the nearest of your table. ¶ Or by proportion the truthe is geuen: whiche all by Ensample folowyng shall playnly be declared.

Ensample.

The firste daye of *January*, I desire all the aforesayde: that is, *the breake of the day*: the very minute of the *Sunne rysing*, the *lengthe of the day*, and also of the *nyght*, the Sunne going down, and the twilight. I fynde on the ryght hand of January, these noumbres runnynge downe, 1. 10. 20. whiche declare the first daye, the tenthe daye, and twenty of that Moneth. Nowe to my purpose, I require the break of the day. &c The first of January, in the Table, vnder that title, on the right hand of this figure 1. I see 5. houres, and 54. minutes, that is. 6. of the clocke wanting. 6. minutes. The rising of the Sun in that order, is iust at 8 as this figure 8 there declareth vnder that title in the rowe. The length of the day, 8. hours, the length of the night 16 houres the Sunne setting is at. 4: the twilight, at 6. and. 6 minutes. Euen thus for the tenth day, and also for the twentye of that Moneth, in the rowes according to their titles in the heade of my Tables.

Howe to worke by proportion, when the daye is not founde.

I Would knowe all thaforesaid, the first day of Januarye. I take for ensample the breake of the day. Remember the first daye of Januarye, I did finde the breake, to be at 5. of the clocke, and. 54. minutes: and the tenth day I may finde the breake of the day to be at. 5. and. 44. minutes, that is. 10. minutes lesse. I see now. 10. daies do geue me. 10. minutes lesse. I say therfore (by proportion) the fifth day must geue. v. minutes lesse then. v. houres. 54. minutes: which is v. houres, 49. minutes my request. Thus for all the other titles.

The hour of the night, by the Moone: is otherwise found then before, and that diuersly.

The hour of her rising knowen, as is opened, & a marke then made wher she shadoweth, in any true fixed or mouable sun Dial, the houres and minutes from that marke all the night after, are to be added to her risynge. If more then. 12. surmounte, onely that aboue. 12. sheweth the true houre and minute. If at the rising she may not be sene, then by the Sunne rysing, in that very Sign (with ẏ help of this Almanack) you may perceiue what hour she would note at her rysing. Therfore from that marke counte.

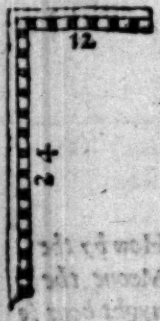
How by the Moone, the nyght hour is found.

An other way.

VVhen the *Moone* is at the full, looke what *houre* her shadowe sheweth in any *Dial*, that is the houre of the nyght. After she be past the full. 28. houres, ye must adde one *houre*: But afore the Full, pull one from that ye finde in the *Dial*. If twyse. 28. two *houres*. &c: So haue ye the *houre* of the night.

How the hour of the day, by Right shadow, that is by any thing directly standing vp, is knowen, and by Squyre shadowe also.

FIrst it behoueth you to haue a *Staffe*, or any other thinge deuided in. xii. equal parts. Whenye list to haue the hour. set vp directly your deuided *Staffe*, on a plain leuel groūd, or bourd. &c. Note the iust lengthe of that shadowe, what partes it containeth. With those enter your Moneth in the Peculiar *Kalender* folowing: beholding diligently vnder the name of that Moneth, the small enclosed *Tables*: considering well, whiche of those smal *Tables* are nerest vnto your day: and that iudge by the Signe, or daye there noted. That Table serueth your purpose: where you must loke out the partes of the shadow afore founde, or nere vnto it: vnder or ouer the whiche the houre is set, before or after noone. Note that *two prickes* there signifye half a part more than is noted: *one pricke*, halfe a parte lesse. Here it is also to be noted, that euerye *Table* hathe within, *two rowes of figures*: the vpper is for the *Staffe*, the other for the *Squire shadowe*. And whatsoeuer is before sayde of the one, that same is ment here of the other, sauyng of the *Composition*.



The *Squyre* muste be diuided from the inward angle to the ende of one side, in 12. equal partes: euen so from that angle thother syde into. 24. like partes, as this figure sheweth.

These to the witty suffise.

The Composition of an Instrument, for the houre of the night: which is also a perfect Diall for the daye, and excellent for the Mariner.

THe takyng of an *Altitude* supposed, I could exactlye in fewe (and that without an Instrument) satisfye. For want of that knowledge, make vpon a plain bourde, or rather fine plate a Circle: the bigger the better. part it into. 360. portions, thus.

The

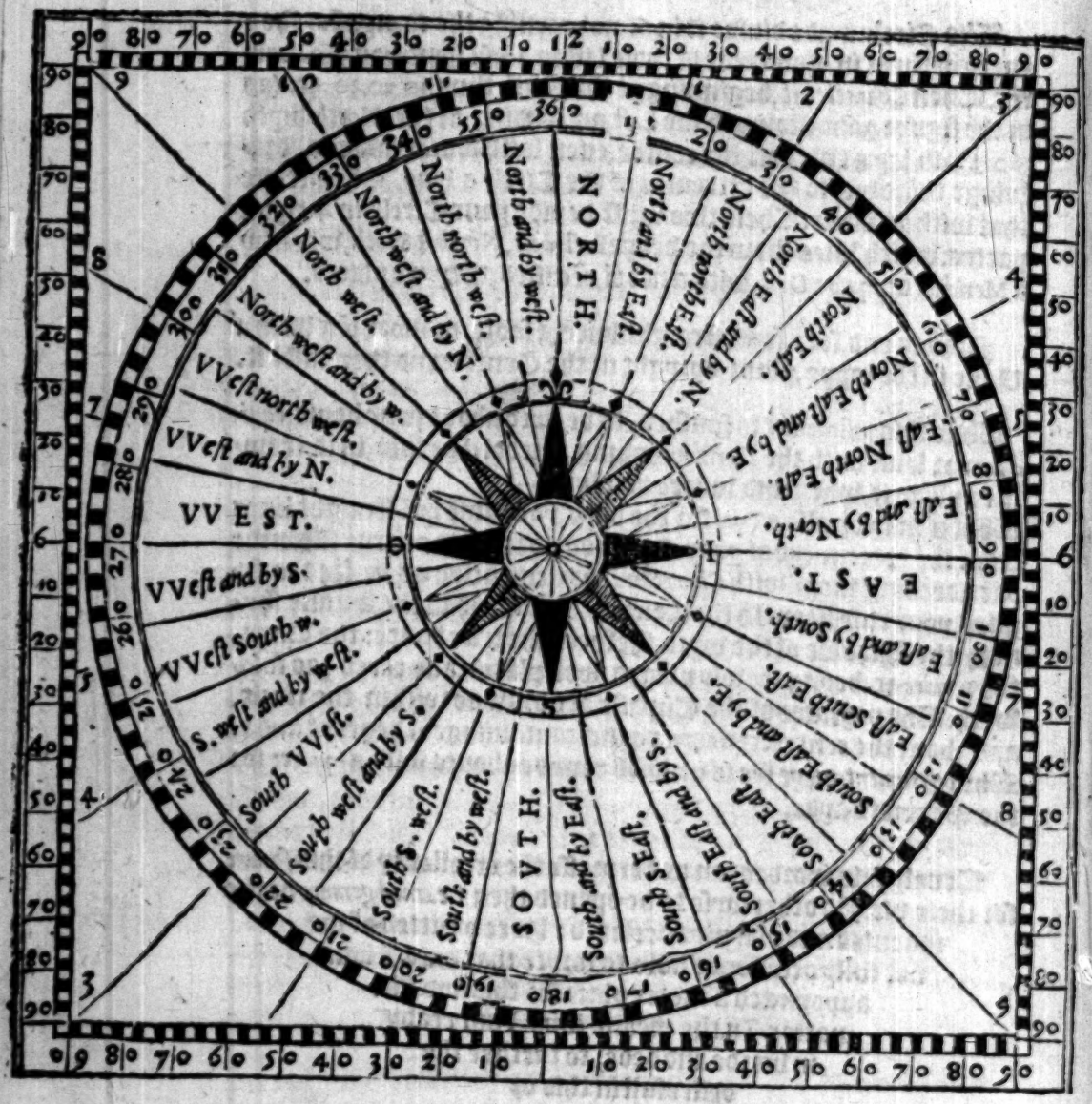
The Circle made diuide it in 6. not mouing the compasse: then euery of them in 6, and eche of those last in. 10: so haue you 360. partes. Then *Character* it, beginning at the North thus. 10. 20. 30. &c. (as in the figure going) toward the East, and ending at the North wyth 360. Now lay a ruler on the centre, euen with some diuisions, drawinge thorowe to the extremes of the Circle a lyne. Then crosse that with an other. These two must deuide your Circle in 4 equal partes: which lines shew the verye East, west, North & South, when by a *Meridian* or *square* Dial, with a nedel rectified, they are placed.

Now to end, set a smal straight wire, a foote or more lōg with a Vane in the toppe, plum vpryght in the Centre: and ther fastē it.

Thus this *Instrument* is finished, to be fixed about your house, *equidistant* or leuil with the Horizon: hauing a nedel if ye liste, in it, trewly to plage it, when and where you will.
That it may be also a Dial for the daye, you must pul straight lines from the extremitye of your Circle outwarde, to euerye fiftenthe part: decking them with *Characters* conuenientlye as ye see the figure, your rule keepeth the Centre. Thus whan the Sunne shyneth, the shadowe of the wyre, sheweth the true houre: the Vane, the *wyndes* &c. beyng trewly plaged, well placed, and rered, as followeth. The poynctes of the Cūpasse are drawne within the circle, and about the centre. Euerye poynct containinge 11 degrees and ½. The *Instrument* as ye see is inclosed rounde aboute with a *square*: for the Mariners ayde.

Truely few wordes can not expresse the excellency of this *square* for their vse: No otherwyse to be opened then *Learned gemma* hathe inuented and playnlye declared: Here omitted of me, not fully occasioned now to wryte that way. I haue appoynted a meter place for this and like matter. In the meane time I am ready in worde and dede, to further the desirefull in this or any other.

G. ij. The



Beholde this Instrument for nauigation most commodious, the vse of the whiche, is here only put forthe according to my Inuention.

The right rering and placinge of the Dial tofore mentioned,

Iſte vp handſomelye your *Inſtrument* or *Dial* towarde the North in ſome meete place, the ſyde of a ſquyre lynge on it, vntyll the plummet and line, centred in the extreeme vpper parte of the other ſyde of youre ſquyre lyke long, cut all that ſquire ſide, whiche lyeth on your Inſtrument, the fifth parte onlye except: Then moue your Inſtrumēt, hyther and theder, this or that way, vntyll the ſhadowe of the wyre fall vpon the houre of the daye, keping diligently your heighte before. Your *Dial* thus fixed declareth all the yeare longe, the exacte houre and partes thereof. No *Dial* in truth excelleth this. Haue in remembraunce, that this inſtrument muſt lie leuel, nothyng at all rered, for the houre of the nyghte by ſtarre.

In wynter the contrarye ſuperficies or plain: ſheweth the day houre frō ♑ to ♈.

To get the exacte houre by two Starres of the firſt lighte, with an Inſtrument or Circle, tofore deuided, firſt of me inuented, calculated and practiſed.

The inſtrument, equidiſtantly ſet and placed, as is declared in the compoſition, ye ought to laye the edge of a ruler vnto the Wyre, the other nether ende touching the inſtrument, mouing here and there, ſtyll touchyng the wire, vntyll eyther Starre doth offer it ſelf with that edge, and that by the Judgemente of the eye. Then put down diſcretely your ruler (euer touching the wyre) the hinder ende not moued, obſeruing how many partes are cut from the North, to the edge of the ruler. Enter with them the Peculiar *Kalendar* folowinge: ſeeking out your *Month*, placed in the myddes of euery Table: then the daye of that monthe muſt be there founde.

Fit filo aut digito, abſque regula exactiſſime.

Note that, euery table hath on the ſydes, the daies thus ordered 1.5.10.15.20.25.30. Knowe that order or rowe of fygures, whyche is right againſt, or nereſt your day, ſerueth the turn. The numbre or partes before cut by the *Ruler*, and nowe ſound in that row of your *table*, ſheweth the preciſe houre. If it be to litle, that hour ouer the head or vnder is not yet come: if contrary, it is paſt.

How these two bright Starres, being of the fyrst lyghte are founde: the one called Aldebaran or Oculus Tauri, the other Alramech.

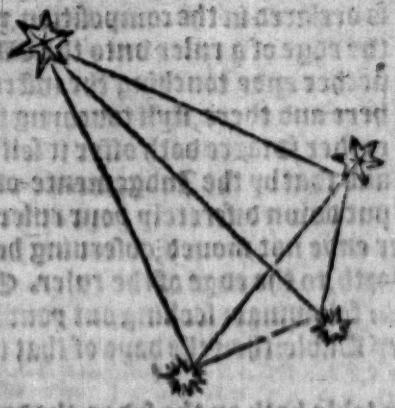
By what meanes these Starres are knowē

THE best way is thus: The *Moneth* and *daie* knowen, with the trewe *houre* of the *nyght*, entre your Table, consideringe that *Moneth* and *daie*: obserue what partes belonge there to that *starre* and *houre*. Then reporte to your *Instrument*, layinge the edge of your ruler, as many partes from the *North Eastward*, circumspectly liftinge vp that edge, close by the wyre: so the fayre Starre shineth euen with that edge.

Or thus grosely.

Another way to finde them

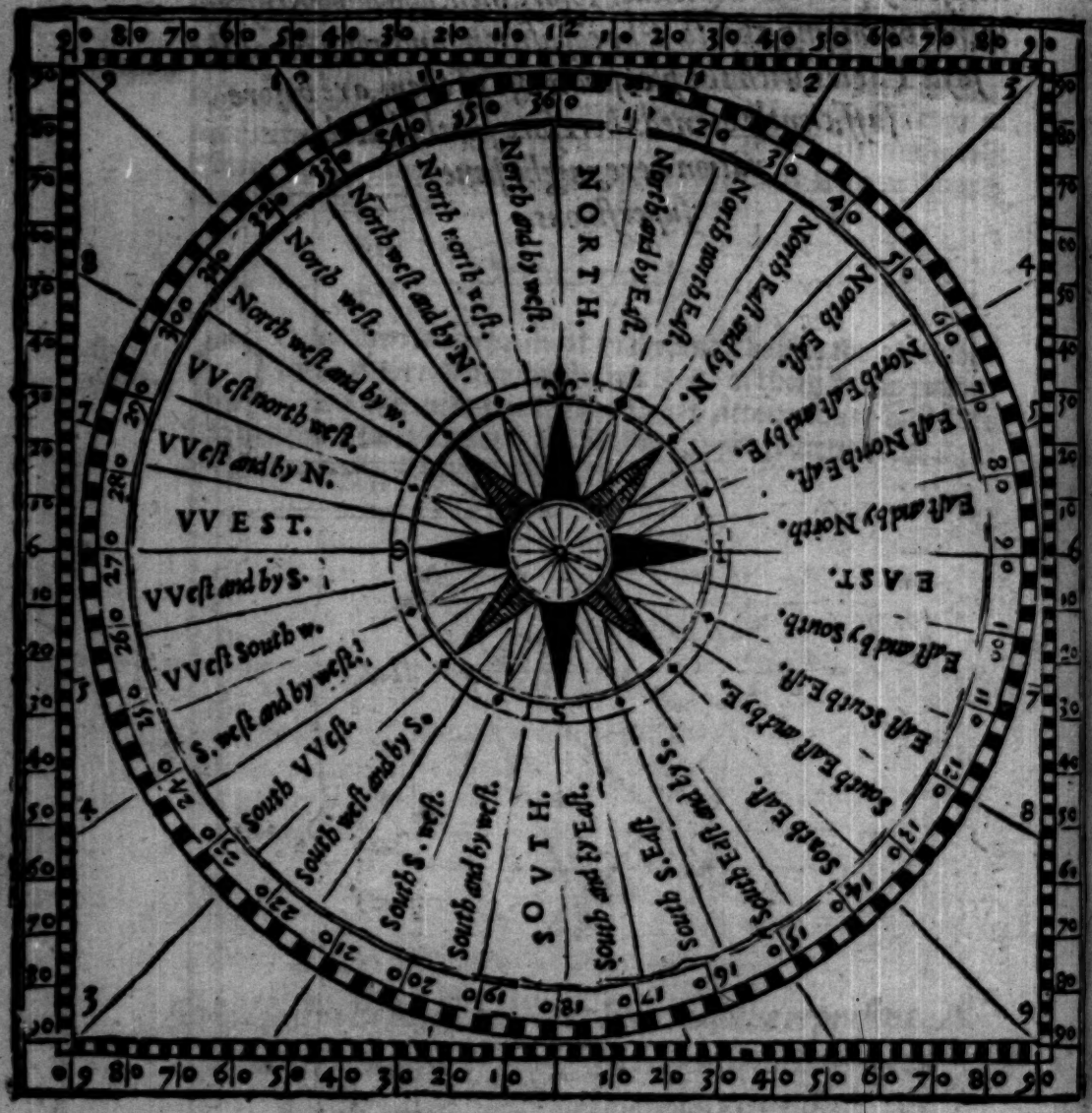
OCulus Tauri is euer a meat rodde, and a half to the eie vnder the 7. Starres, and somewhat North of them in the rysing. Alramech is contrarie to him plaged, accompanied with three litle dimme Starres, a rod from him by the iudgement of the sight in the forme of a Triangle thus.



Beholde this Figure, the great Starre doth represent Alramech, the other three, the Triangle, which is placed alwayes with him. But commonly ther doth appeare but one Starre of the Triangle.

NOVVE ENSVETH THE NEDEFVL necessary peculiar Kalender tofore mencioned: with Instruments belonging therto The cõposition, and applians of the sayd Tables, with the pleasaunt vse of them, are before sufficiently opened: therefore further declaration here, might seme superfluous.

A necessary Instrument, to finde exactly the houre of the day, and night, diuers wayes, with helpe of this Peculiar Kalendare.



	5	6	7	8	9	10	11	12	
1	108	123	143	165	190	213	59	79	
5	112	129	150	172	197	220	63	74	
10	118	136	158	183	206	227	68	78	
15	123	144	166	192	214	223	71	81	Oculus Tau.
20	130	151	173	199	220	239	75	86	
25	137	1 8	183	207	228	244	79	90	Alramech.
30	144	165	191	213	233	249	82	93	

From euening to midday.

For the nyght.

Iannuary hath. xxxi. dayes.

From midnight unto day.

81	93	105	121	143	168	196		1
86	96	110	127	151	177	205		5
89	101	116	135	160	180	214		10
93	105	122	143	169	198	223		15
98	111	128	152	179	207	230		20 Alramech.
101	116	135	159	190	216	236		25
106	121	144	168	198	222	242		30
1	2	3	4	5	6	7		

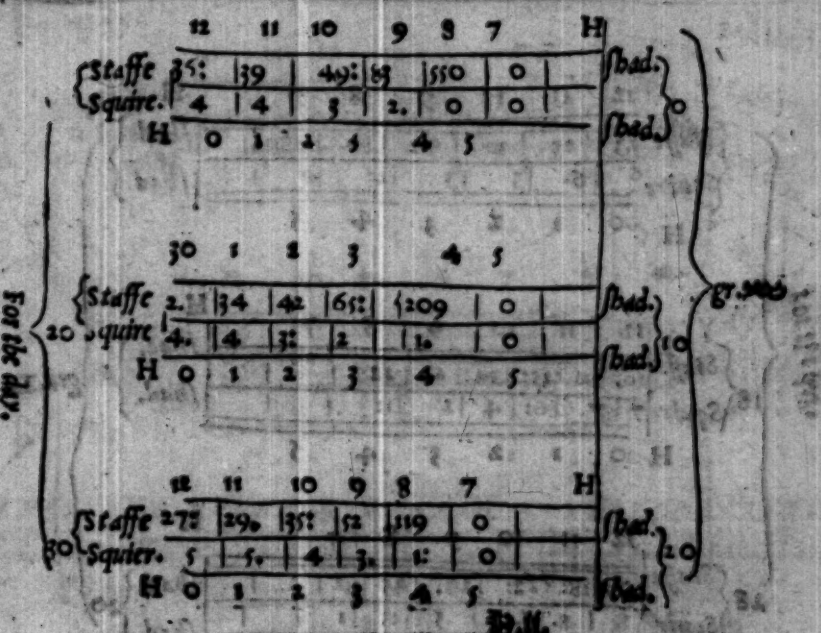
For the day.

	12	11	10	9	8	7	H	
Staffe	35:	39	49:	83	550	0		shad.
Squire.	4	4	3	2.	0	0		0
H	0	1	2	3	4	5		shad.

	30	1	2	3	4	5	
Staffe	2.	34	42	65:	209	0	shad.
20 Squire	4.	4	3:	2	1.	0	10
H	0	1	2	3	4	5	shad.

	12	11	10	9	8	7	H	
Staffe	27:	29.	35:	52	119	0		shad.
30 Squier.	5	5.	4	3.	1:	0		20
H	0	1	2	3	4	5		shad.

gr. [illegible]



Alramech.

Oculus Tau.

Alramech.

From midnight vnto noone.

From noone vnto midnight.

	9	7	8	9	10	11	12
1	169	194	216	62	73	83	95
5	174	199	222	64	75	86	98
10	184	207	228	68	79	90	102
15	191	214	234	71	82	94	106
20	98	220	238	75	86	98	111
25	205	226	243	78	88	100	116
30							

Februarii. Aprilis. Iunii. Augusti. October. December. 28.

	108	124	164	172	201	225	
	111	129	153	180	207	231	
	117	136	162	190	216	237	
	122	144	169	198	223	243	
	128	152	178	206	230	248	
	134	159	188	214	236	252	

	2	3	4	5

From noone vnto midnight.

1	5
10	15
20	25
30	

For the day.

	12	11	10	9	8	7	H	
Staffe	23	25	30	42	80	6896		shad.
Squire	6	6	5	13	21	10	1	shad.
H	0	1	2	3	4	5		

	H	12	11	10	9	8	7	
Staffe		20	27	25	34	61	226	shad.
Squire	18	7	7	6	4	2	11	shad.
H		0	1	2	3	4	5	

	H	12	11	10	9	8	7	
Staffe		17	18	22	29	45	112	shad.
Squire	28	8	8	6	5	3	1	shad.
H		0	1	2	3	4	5	

74. H.

	7	8	9	10	11	12
1	59	70	81	93	105	120
5	62	74	84	95	108	125
10	65	79	87	99	113	131
15	69	80	91	103	118	138
20	72	83	94	107	123	146
25	75	86	98	112	129	153
30	80	90	102	117	136	161

Marche hath xxxi dayes.

142	168	196	222	241		
147	173	201	227	245		
155	183	210	232	250		
163	192	216	238	255		
171	200	225	243	259		
180	208	232	249	262		
191	216	237	254	267		
1	2	3	4	5	6	

From euening to midnight.

1 5 10 15 20 25 30

Alrænech.

For the nyght.

From midnight unto day.

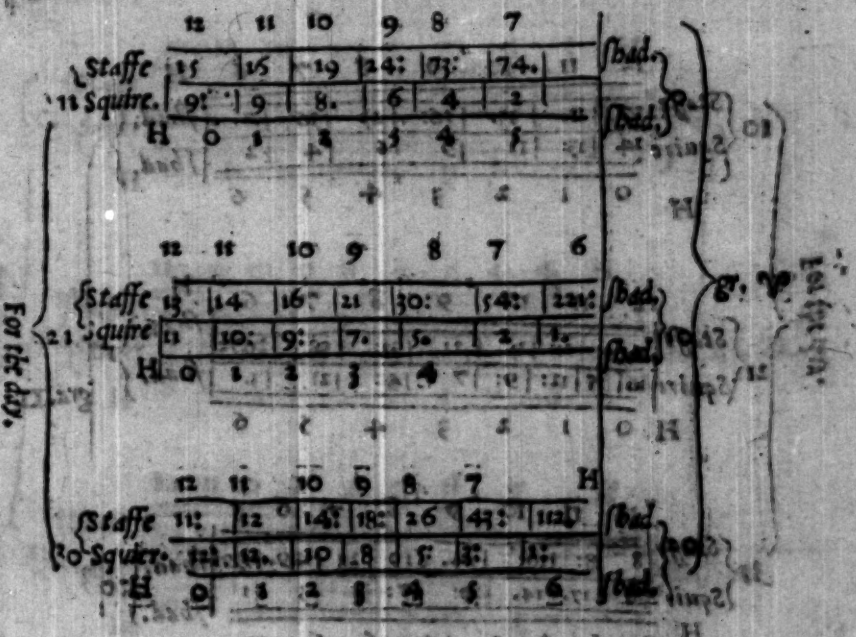
	12	11	10	9	8	7	
Staffe	15	16	19	24:	73:	74.	shad.
11 Squire.	9:	9	8.	6	4	2	shad.
H	0	1	2	3	4	5	

	12	11	10	9	8	7	6	
Staffe	13	14	16	21	30:	54:	221:	shad.
21 Squire	11	10:	9:	7.	5.	2	1.	shad.
H	0	1	2	3	4			

	12	11	10	9	8	7	H	
Staffe	11:	12	14:	18:	26	43:	112.	shad.
30 Squier.	12:	12.	10	8	5:	3:	1:	
H	0	1	2	3	4	5	6	shad.

gr. ♈

For the day.



Fol. 31.

Alramech.

	8	9	10	11	12				
1	92	104	118	138	164				
5	94	107	123	145	171				
10	98	111	129	153	180				
15	101	117	135	160	189				
20	106	122	144	168	198				
25	111	128	152	178	207				
30	117	135	159	189	215				

From euening to midnight.

Aprile hath. xxx. dayes.

Alramech.

	193	218	239	255					
	199	225	244	258					1
	207	231	248	262					5
	215	236	253	266					10
	223	243	257	270					15
	230	248	262	274					20
	236	252	266	278					25
	1	2	3	4	5				30

From midnight vnto daye.

For the day.

		12	11	10	9	8	7	6	H	
10	Staffe	10	11.	13.	16:	23	36	70	shad.	
	Squire	14	13:	11	9.	6	4	2	shad.	
	H	0	1	2	3	4	5	6		

		12	11	10	9	8	7	6	H	
21	Staffe	9	9:	11:	15	21.	31:	58:	267:	shad.
	Squire	16	15	12:	9:	7	4:	2:	1.	shad.
	H	0	1	2	3	4	5	6		

gra. II

		12	11	10	9	8	7	6	5	
31	Staffe	8	8:	10:	14.	19	28	49.	139:	shad.
	Squir'	18	17.	14.	10:	7:	5	3	1	shad.
	H	0	1	2	3	4	5	6	7	

20

	8	9	10	11	12			
1	117	136	160	192	216			
5	120	142	168	196	223			
10	128	152	178	206	230			
15	134	159	188	214	235			
20	143	168	196	222	241			
25	151	177	205	230	248			
30	160	189	215	236	253			

From euening to midnight.

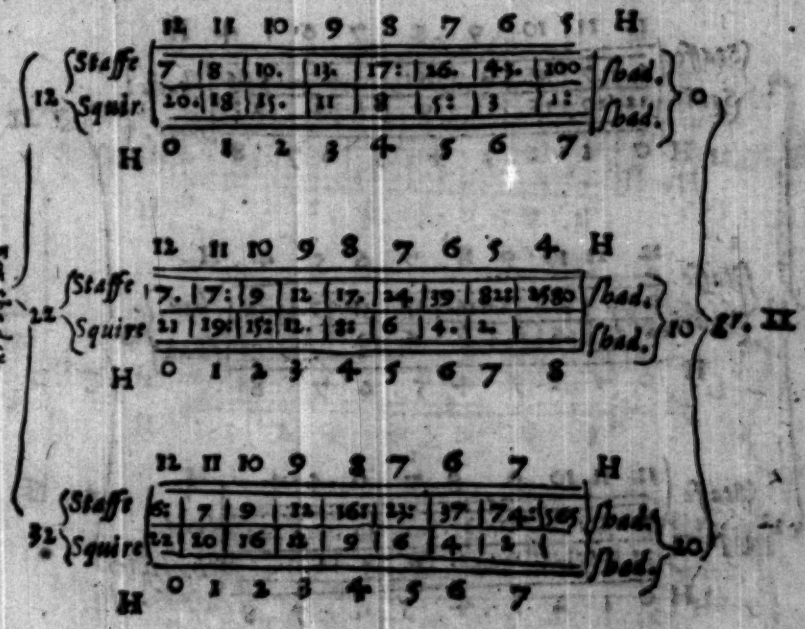
May hath. xxxi. dayes.

Alramech.

237	253	267	278				1
241	256	269	280				5
247	261	273	285				10
252	266	278	288				15
257	270	281	292				20
262	274	285	296				25
266	278	288	300				30

From midnight vnto day.

1 2 3 4 5



Alramech.

	8	9	10	11	12			
1	161	191	216	237	254			
5	169	197	223	242	257			
10	180	207	231	249	262			
15	191	216	237	254	267			
20	199	224	243	258	271			
25	207	231	249	262	275			
30	216	237	254	267	279			

Iune hath. xxx. dayes.

267	279	290	301					1
270	282	292	303					5
274	285	297	308					10
279	290	301						15
283	293	304						20
86	297	308						25
290	301	82						30
1	2	3	4	5				

From midnight vnto day.

From euening to midnight.

For the day.

		12	11	10	9	8	7	6	5	4	H		
1	Staffe	6	7	9	12	16:	23	37.	565		shad.	20	gr. II
	Squire	12	10	16	12	9	6	4	2:		shad.		
	H	0	1	2	3	4	5	6	7	8			

		12	11	10	9	8	7	6	5	4	H		
12	Staffe	6:	7	9	12	16:	23:	37	74:	565	shad.	0	
	Squire	22	20	16	12	9	6	4	2		shad.		
	H	0	1	2	3	4	5	6	7	8			

		12	11	10	9	8	7	6	5	4	H		
23	Staffe	7.	7:	9	12	17.	24	39	82:	2580	shad.	10	gr. 69
	Squire	21	19:	15:	12.	8:	6	4.	2.		shad.		
	H	0	1	2	3	4	5	6	7	8			

	8	9	10	11	12			
1	219	239	255	268	280			
5	225	244	259	272	283			
10	233	250	264	275	286			
15	238	254	267	279	290			
20	243	258	271	283	293			
25	249	262	275	286	297			
30	254	267	279	290	300			

For the nyght. From midnight vnto day. From euening to midnight.

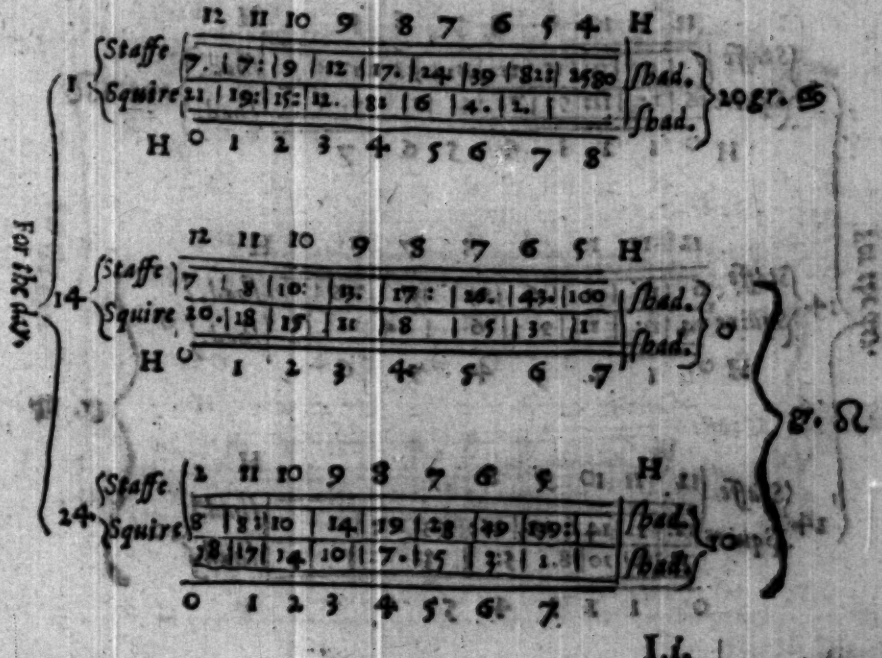
Alramech.

Iuly hath. xxxi. dayes.

290	302	83						1
293	304	86						5
297	79	90						10
301	82	43						15
304	86	98						20
308	89	101						25
82	93	106						30
1	2	3	4	5				

Alramech.

Oculus Tauri



Alramech.

Oculus Tauri

	8	9	10	11	12				
1	255	257	279	291	302				
5	259	272	284	294	304				
10	263	275	286	297	79				
15	267	279	290	300	81				
20	270	282	292	303	86				
25	274	285	296	308	88				
30	278	288	299	81	92				

August hath. xxxi. dayes.

	82	94	107	122	141				1
	86	98	111	126	146				5
	89	102	115	132	154				10
	93	105	119	138	160				15
	96	110	125	144	167				20
	100	114	130	152	174				25
	104	118	136	158	183				30
	1	2	3	4	5				

From euening to midnight.

For the nyght.

From midnight vnto day.

Oculus Tauri

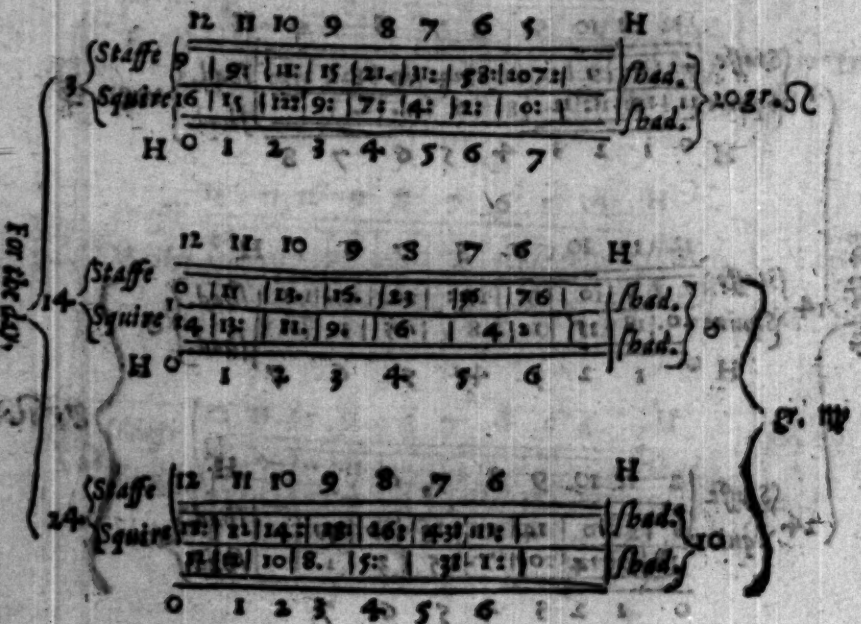
		12	11	10	9	8	7	6	5	H	
3	Staffe	9	9:	11:	15	21.	31:	58:	207:	shad.	20 gr. ♌
	Squire	16	15	12:	9:	7:	4:	2:	0:	shad.	
	H	0	1	2	3	4	5	6	7		

		12	11	10	9	8	7	6	H	
14	Staffe	0	11	13.	15.	23	36	76	shad.	0
	Squire	14	13:	11.	9.	6	4	2	shad.	
	H	0	1	2	3	4	5	6		

		12	11	10	9	8	7	6	H	
24	Staffe	11:	12	14:	18:	26:	43:	111:	shad.	10
	Squire	12	12	10	8.	5:	3:	1:	shad.	
		0	1	2	3	4	5	6		

For the day.

gr. ♍



	7	8	9	10	11	12			
1	267	279	290	301	82	93			
5	270	281	292	303	85	96			
10	273	285	295	307	88	100			Alramech.
15	276	287	298	80	91	104			
20	280	291	302	83	94	108			
25	284	295	305	87	99	112			
30	287	297	80	91	103	117			

For the nyght. From midnight vnto daye. From euening to midnight.

September hath. xxx. dayes.

106	120	139	161	186				1
109	124	144	166	192				5 Alramech.
113	129	150	173	199				10
117	135	155	180	204				15 Oculus Tauri
123	142	164	189	212				20
128	149	171	196	219				25
134	155	180	204	225				30
1	2	3	4	5	6			

For the day.

		12	11	10	9	8	7	6	H	
3	Staffe	13	14.	16:	21	30:	54:	22:	shad.	20 gr. ♍
	Squire	11	10:	9.	7.	5.	3:	0	shad.	
	H	0	1	2	3	4	5	6		

		12	11	10	9	8	7	H	
14	Staffe	15	16	19.	24:	37.	73:	shad.	0
	Squire	9:	9	8	6	4	2	shad.	
	H	0	1	2	3	4	5		

		12	11	10	9	8	7	H	
24	Staffe	17:	18:	22.	29.	45:	112	shad.	10 gra ♎
	Squire	8	8.	6:	5	3	1:	shad.	
	H	0	1	2	3	4	5		

Alrameeh.

Oculus Tauri

Oculus Tauri

From midnight vnto daye.

From euening to midnight.

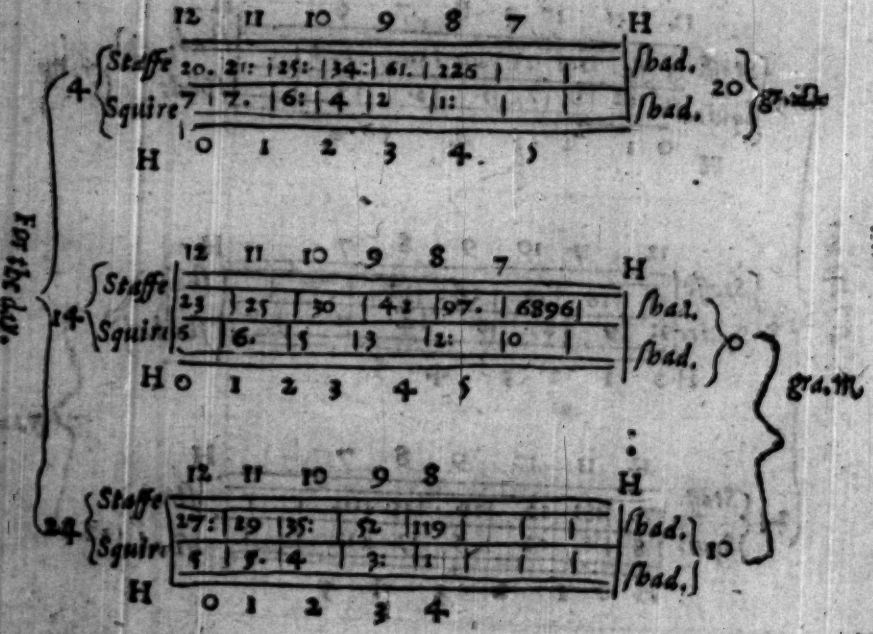
For the nyght.

	6	7	8	9	10	11	12	
1	277	288	298	80	92	104	117	
5	279	290	302	82	94	107	122	
10	284	294	305	86	98	111	127	
15	286	68	79	90	102	116	133	
20	290	71	82	93	106	121	140	
25	294	75	86	98	111	126	146	
30	297	79	90	102	116	132	154	

October hath. xxxi. dayes.

	153	157	181	205	225	243		
1	141	162	188	210	231	247		
5	147	170	195	218	237	252		
10	154	178	202	215	242	256		
15	162	186	210	230	246	260		
20	169	194	217	235	251	264		
25	177	202	224	241	255	268		
30	1	2	3	4	5	6		

For the day.

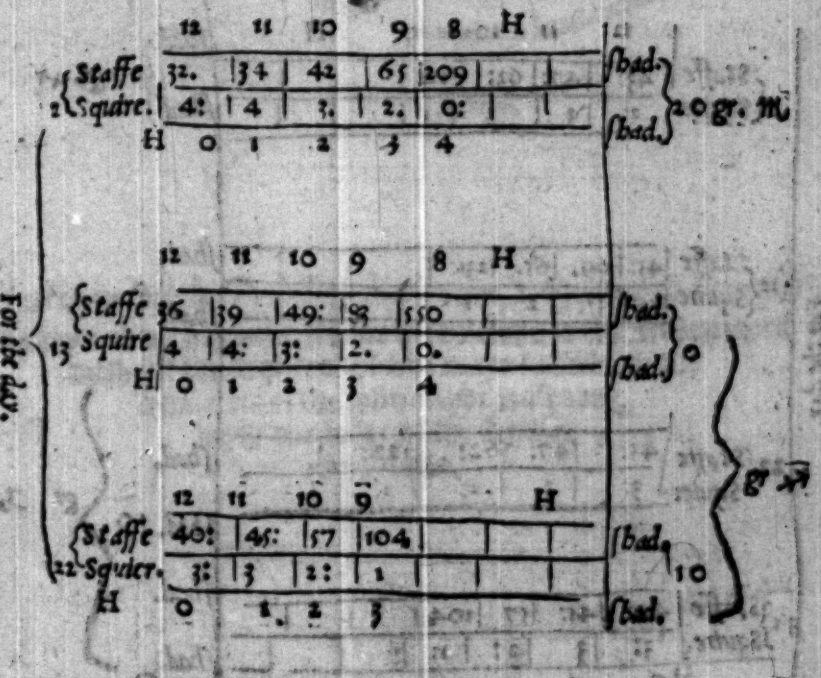


	5	6	7	8	9	10	11	12	
1	287	298	80	92	104	117	135	156	
5	290	302	82	94	107	122	140	163	Alramech.
10	294	305	87	98	111	127	147	171	
15	298	80	91	103	117	135	156	180	Oculus Tauri
20	303	83	95	108	123	142	165	189	
25	307	88	100	113	129	150	173	198	
30	81	92	104	116	136	158	183	206	

From euening to midnight.

Nouember hath xxx dayes.

1	182	205	226	243	257	270	261	292	
5	188	211	231	248	261	73	285	296	
10	196	218	237	252	265	277	288	000	Oculus Tauri
15	204	225	243	257	269	281	292	000	
20	213	232	248	261	274	285	297	000	
25	220	238	253	266	278	290	217	000	
30	227	244	258	270	282	293	137	000	
	1	2	3	4	5	6	7	8	



From midnight unto day.

For the nyght.

		12	11	10	9	8	H		
2	Staffe	32.	34	42	65	209			shad.
	Squire.	4:	4	3.	2.	0:			shad.
	H	0	1	2	3	4			

20 gr. ♏

For the day.

		12	11	10	9	8	H		
13	Staffe	36	39	49:	83	550			shad.
	Squire	4	4:	3:	2.	0.			shad.
	H	0	1	2	3	4			

0

		12	11	10	9		H		
22	Staffe	40:	45:	57	104				shad.
	Squier.	3:	3	2:	1				
	H	0	1	2	3				shad.

10

gr ♐

Oculus Tauri

	5	6	7	8	9	10	11	12	
1	81	92	105	119	136	158	183	207	
5	84	96	109	124	144	166	192	214	
10	89	101	115	132	153	175	201	222	
15	93	105	120	139	161	186	209	230	
20	98	111	127	147	169	195	217	236	
25	102	116	133	154	177	202	224	242	
30	107	122	141	163	188	211	231	248	

From euening to midnight.

For the nyght.

December hath. xxxi. dayes.

Oculus Tauri

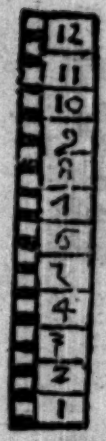
Alramech.

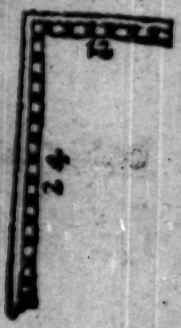
From midnight unto day.

228	244	258	271	283	293	135	000	1
234	249	263	275	286	1 2	144	000	5
240	255	267	279	291	129	153	000	10
246	260	272	284	295	138	163	000	15
251	264	276	287	124	147	174	000	20
256	268	280	291	132	155	184	000	25
261	273	285	296	140	165	194	000	30
1	2	3	4	5	6	7		

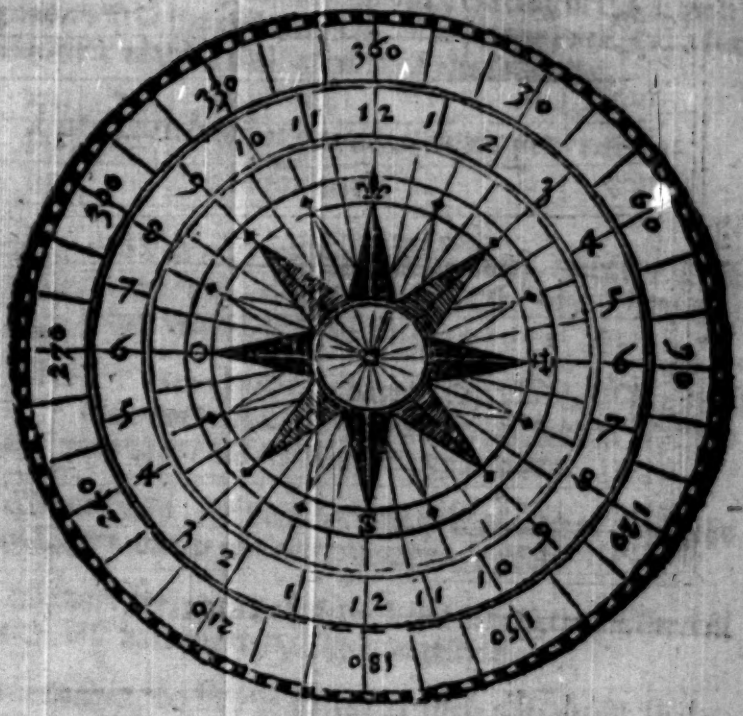
For the day.

		12	11	10	9	H			
2	Staffe	43:	47:	62:	122				shad. 20 gr. ♐
	Squire.	3:	3	2	1				shad.
12	Staffe	45:	49.	65.	231:				shad. 0
	Squire	3	3	2	1				shad.
22	Staffe	43:	47:	62:	122:				shad.
	Squier.	3:	3	2:	1				shad. 10 gr ♑
31	Staffe	40:	45:	57	104				shad.
	Squire.	3:	3	2:	1:				shad. 0
		H 0	1	2	3				





North.



VVest. East.

South.

Thus is ended the Peculiar Kalender, very commodious for the day and night houre. I haue here adioyned the Instrument without the Square, whiche maye sufficie for the whole vse of the foresayde Kalendar, wyth the helpe of the Squire and Staffe.

I haue not here omitte a *Kalender Generall* deuided in two partes, wherof the first containeth six monethes, from *Ianuary* to *Iune*: The seconde other six monethes from *Iuly* to *December*. In thys *Kalendar* are setforth the Festiual daies, the entring of the *Sunne* in the Signes *celestiall*, the euil dayes noted with one *Prick*. For a further declaration of these euil dayes, read this folowing.

The yeare hath.xxxiii. euil dayes general for euer.

IANVARY hath eyght suche daies, the.i. the.ii. the iiii. the.v. the.x. the.xv. the.xvii. the.xxix. Drinke white wine this Moneth.

February hath thre dayes, the.viii. the.x. the.xvii. these not so euil, the.xxvi. the.xxvii. the.xxviii. Eate no potage of okes or malowes: They are venemous.

March three daies, the.xv. the.xvi. the.xix: this not so euill, the xxviii. day. This moneth, all swete meates are good.

Apryl two dais, the.xvi. the.xxi: these not so euil, the vii. the. viii the.x. the. xx. Use hote meates, of light digestion.

May three dayes, the. vii. the.x. the.xx: these not so euill, the. iii. the. vi. Rise early, and vse breakfast.

Iune two, the. iiii. the. vii: these not so euil, the.x. the.x. the xxii. Sage & lettuse are good to eat. Cold water fasting hurteth not.

Iuly two dayes, the.xv. the .xx. abstain from carnality.

August two daies, the.xix. the.xx: these not so euill, the firste, the xxix, the.xxx. It hurteth not to abstaine from potage, and all hotte meates and drinkes of spicery.

September two daies, the. vi. the. vii. theese not so euil, the. iii. the iiii. the.xxi. the xxii. Eat good fruit.

October one day, the vi: these not so euil, the. iiii. the.xvi. the. xviii Good wine is wholsome this Moneth.

Nouember two daies, the.xv. the.xix: these not so euill, the. v. the vi. the.xxviii, the.xxix. Bleede not.

December thre daies, the. vi. the. vii. the. ix. these dais not so euil, the.xv. the.xvii. the.xxii. Bleede not ouer muche. Warme not thy legges at the fyre.

The first part of the generall Kalendar: from Ianuarie to Iune.

Ianuarie.	Februarie.	March.	Daies	April.	May.	Iune.
:A Circuc.	d	d	1	g	b Phi. Iac.	e
:b	e Purifi.	e	2	A	c	f
c	f	f	3	b	.d	g
:d	g	g	4	c	e	:A
:e	A	A	5	d	f	b
f Epiph.	b	b	6	e	.g	c
g	c	c	7	.f	:A	:d
A	:d	d	8	.g	b	e
b	e ☉ in ♓	e	9	A	c	f
:c	:f	f	10	.b	d	.g
d ☉ m ♒	g	g ☉ m ♈	11	c ☉ in ♉	e	A Barna.
e	A	A Spring.	12	d	f ☉ in ♊	b ☉ m ♋
f Hilar.	b	b	13	.e	g	c Sumer.
g	c Valen.	c	14	f	A	d
:A	d	:d	15	g	:b	.e
b	e	:e	16	:A	c	f
:c	:f	f	17	b	d	g
d	g	g	18	c	e	A
e	A	:A	19	d	f	b
f	b	b	20	.e	:g	c
g	c	c	21	:f	A	d
A	d	d	22	g	b	.e
b	e	e	23	A Georg.	c	f
c	f Ma.	f	24	b	d	g Io. Bap.
d Cō. Pau.	g	g Anun.	25	c Marc.	e	A
e	.A	A	26	d	f	b
f	.b	b	27	e	g	c
g	.c	.c	28	f	A	d
:A		d	29	g	b	e Pe. Pa.
b		e	30	A	c	f
c		f	31		d	

The seconde part of the generall Kalendar: from Iulie to December.

Iuly.	August.	Septemb.	Dayes	October.	Novem.	Decem.
g	.c Pet. Vin.	f	1	A	d Om. sa.	f
A	d	g	2	b	e Om. an.	g
b	e	.A	3	.c	f	A
c	f	.b	4	d	g	b
d	g	c	5	e	.A	c
e Dog beg.	A	:d	6	:f	.b	:d Nico.
f	b	:e	7	g	c	:e
g	c	f Na. Ma.	8	A	d	f Co. ma.
A	d	g	9	b	e	:g
b	e	A	10	c	f	A
c	f	b	11	d	g	b
d	g	c	12	e	A	c ☉ in ♐
e	A	d	13	f	b ☉ in ♑	d wynter.
f ☉ in ♌	b ☉ in ♍	c ☉ in ♎	14	g ☉ in ♏	c	e
:g	c	:f Hernest.	15	A	:d	.f
A	d	g	16	.b	e	g
b	e Dog end	A	17	c	f	.A
c	f	b	18	d Luc.	g	.b
d	:g	c	19	e	.A	c
:e	:A	d	20	f	b	d
f	b	.e Mathe.	21	g	c	e Tho. ap.
g Ma. mag.	c		22	A	d	f
A	d	g	.23	b	e	g
b	e Barbo.	A	24	.c	f	A
c Luc. Apo.	f	b	25	d	g	b N. a. do.
d	g	c	26	e	A	c Steph.
e	A	d	27	f	b	d Io. euā.
f	b	e	28	g Si. Iud.	.c	e Innoce.
g	.c decol. Io.	f Micha.	29	A	.d	f Tho.
A	.d	g	.30	b	Andre.	g
b	e		31	c		A

The generall Kalendar.

Lo the briefe vse of this generall Kalendar.

Ntre the Columpne where youre Moneth is noted in the hedde, ye shall there fynde runnyng downe the Columpne the Festiual dayes of that Moneth, the entre of the Sunne in the Coelestiall Signes, the Euil daies pricked &c.

I wouldbe haue placed in this Kalendare the Fayers, Termes also, but that canne not remaine continuall true: For those that ensue mouable Feastes are mioueable, and therfore may haue no certayne place. For the Termes, note these preceptes folowing. The Fayers, shalbe declared by two Tables immediatly ensuing this Kalendar general.

How to know the Termes.

KNow therfore, that Easter Terme alwayes beginneth the 18 day after Easter, rekening Easter day for one: and endeth the Mondaye next after the Ascension day.

Trinitie Terme beginneth the Friday next after Corpus Christi day: and endeth the VVedensday fortnight after.

Michaelmasse Terme beginneth the 9 or 10 daye of October: and endeth the 28 or 29 of November.

Hilary Terme beginneth the 23 or 24 daye of Januarye: and endeth the 12 or 13 day of Februarye.

FINIS.

A Table containing the Moneth, Day, and Place of the principal Fayers of England: to be augmented at pleasure in order folowyng.

Januarye. The 6 day at Bristow, at Salisbery. The first of Lent at Exeter.

Februarye. The 2 day at Bathe, at Paydstone. The 14 at Feuerſame. Aſhwedenſdaye, at Lychfelde, at Royſton, at Tamworthe. The firſte monday in Lent, at Ciſeter, at Abington. The 24 at Penlye vpon Temmes, at Tewkesbury.

Marche. The 4 Sonday in Lent, at Stanforde, at Sudbery. The 5 Sonday at Grantam, at Salisbury, the Monday before our Lady day at Wilbich Palme euen. The 13 at Wye. The 25 at Northãpton, at Great Chart at Maulden.

Aprill. The 5 day at Walyngford. The 7 at Darby. The 9 at Byckelworth, at Pyllingworth, at Caſam the Munday after. The 13 Sondaye after Eaſter at Louth. The 23 at Charing, at Ipſwiche, at Amtyll, at Pinigam, at Gylford. The 25 at Darbe. The 26 at Tenterden.

May. The 1 day at Stow the old, at Readyng, at Paydſtone, at Leceter, at Cherſford The 8 day at Beuerly, Allention day, at Birmingcham, at S. Edes, at Bylhoppes Statford. Whitſondaye, at Kyngſtone vpon Temmes. Trinity Sondaye, at Rouel, at Cranbroke. The 19 day, the 27 day at Lenham.

Iune. Corpus Chriſti. at Couentry, S. Edes, at Bylhop Stanforth, at Rolle. The 9 at Paidſtone. The 11 at Okingã. The 23 Shrowſbury, at S. Albons. The 24 at Cantbridge, at Glocestre, at Lincoln, at Winſor. Colcheſter. The 29 at Woller, at Hãpton, at Peterborow The 17 at Folkſton. The 24 at Harliſam. The 29 at Hetcorn.

A Table containing the Moneth, Day, and Place of the principal Fayers of England: to be augmented at pleasure in order folowyng.

July.

The 11 daye Horse fayer at Partney, at Pabor, at Felix. The 12 day at Lid. The 17 at Pinchbacke. The 17 at Wynchecome. The 20 at Urbridge, at Cattesby. The 22 at Marborowe, at Winchester, at Colchester, at Tetbery The 25 at Bristowe, at Douer at Chilham, at Ipswitch, at Northhampton, at Darby, at S. James by London, at Reading, at Lowth, at Maelsbery.

August.

The 1 day at Feuersame, at Dostable, at S. Edes, at Budforth at Maream Churche, at Wysbyche. The 9 at Rumney. The 10 at Bedford, at Fernam, at Strodes, at Blakamore. S. Lau. at Walton. The 24 at London, at Tewrsbery, at Sudberry, at Norwich, at Northalerton, at Douer, at Rie. The 28 at Ashforde.

September.

The 8 daye at Cambridge, at Sturbridge, at London in Southwork, at Smide, at Recolver, at Partney thre Lady daies. The 14 at Waltam Abbie, at Wotton vnder Hedge, at Smaldinge. The 21 at Croyden, at Hulden in Hulenneste, at S. Edmonds bery, at Paulton, at S. Jues, at Haldy Lanam, at Wyltenall, at Sittingborowe, at Douer, at Estrie. The 29 day at Canterbury.

October.

The 6 daye at S. Sithes beside Norwitche. The 13 at Graues ende, at Winsor, at Marcheselde. The 18 at Elye, at Staneton, at Charing. The 28 at Harford, at Cicster, at Newmarket.

November.

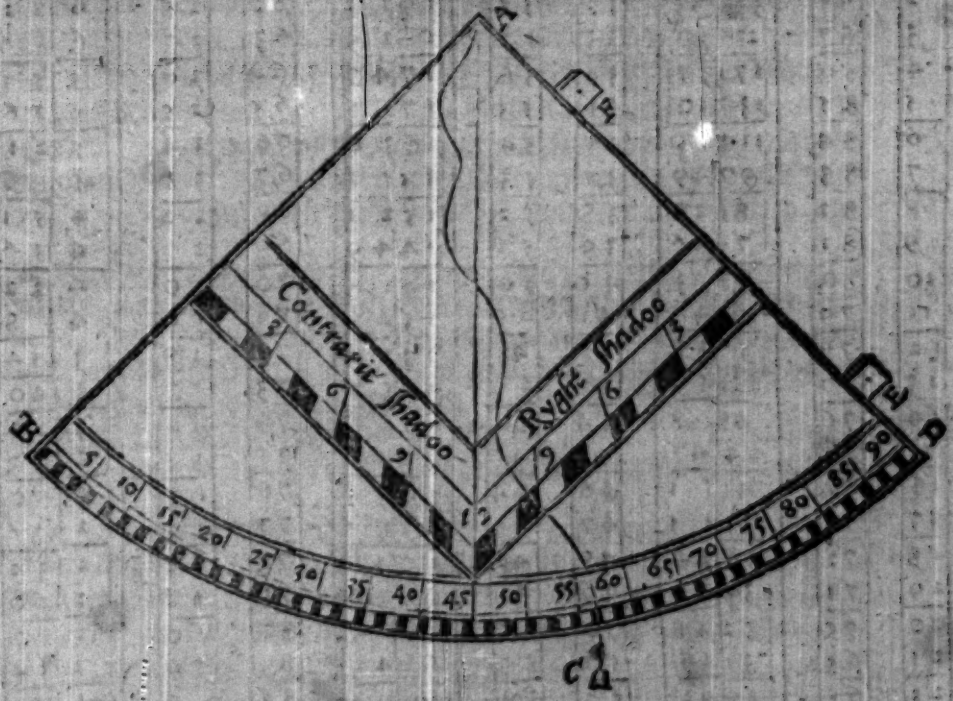
The 2 daye at Kingstone, at Blechingdye. The 6 at Newporte ponde, at Standly. The 11 at Douer. The 13 at S. Edmonds bery. The 20 at Hyth. The 23 at Sandwyche. The 30 at Rochester, at Maydenhead.

Dece.

The 29 at Canterbury. The 5 at Pluckly. The 6 at Spaldinge. The 7 at Sanderst.

Because I vnderstand many are desirous howe to get exactly the iust length of Staffe and Squier shadow before tre ted of, vpon on leauell grounde, or other wayes where so euer it be, yea without eather Squier or Staffe, I haue calculated a Table folowing, thorowly satisfying them, so that they get the height of the Sunne any way, or as I shall now enstruct.

Behold this Instrument called a Quadrant the iust fourth part of a Circle, euen suche a Circle as I taughte you before to make for the nyght Dyal: cõtaining the fourth part of his diuisions, that is 90 degrees, only two syghts and a plume lyne added, to be placed at the beginning of this booke as ye may there: and here see. I haue here also put the Scale to the Quadrant, which serueth wel for shadowes, and as well for heyghtes. The vse of this Scale is declared in my boke called Tectonicon.



How by this Instrument to get the height of the Sunne at all tymes.

Lifte vp hansomlye your Quadrant the Sunne beames persyng the sightes. The Plommet and Lyne then at liberty fallinge, noteth there the degrees of height at that present, with the whyche shal entre this Table immediatly folowing, to get then, and in lyke maner at all other times ye the iust shadowe of the Staffe or Squyer.

A Table

A Table generall of Shadowes, right and contrary for euery grade of the Sunnes heyght: The thinge causing Shadowe, supposed 12 partes.

Heyght of the Sunne.		Staffe. Shadow.		Heyght of the Sunne.		Staffe. Shadow		Heyght of the sunne.		Staffe. Shadowe.	
G	g	P	M	G	G	P	M	G	g	P	M
0	90	Shadow.		30	60	20	47	60	30	6	56
1	89	687	34	31	59	19	58	61	29	6	39
2	88	343	43	32	58	19	12	62	28	6	23
3	87	228	59	33	57	18	29	63	27	6	7
4	86	171	37	34	56	17	47	64	26	5	51
5	85	137	10	35	55	17	5	65	25	5	36
6	84	114	10	36	54	16	30	66	24	5	21
7	83	97	49	37	53	15	52	67	23	5	6
8	82	85	28	38	52	15	21	68	22	4	51
9	81	75	46	39	51	14	49	69	21	4	36
10	80	68	3	40	50	14	18	70	20	4	22
11	79	61	44	41	49	13	48	71	19	4	8
12	78	56	27	42	48	13	20	72	18	3	54
13	77	51	59	43	47	12	52	73	17	3	40
14	76	48	8	44	46	12	26	74	16	3	26
15	75	44	47	45	45	12	0	75	15	3	13
16	74	41	51	46	44	11	35	76	14	3	0
17	73	39	15	47	43	11	11	77	13	2	46
18	72	36	54	48	42	10	49	78	12	2	32
19	71	34	31	49	41	10	26	79	11	2	20
20	70	32	58	50	40	10	4	80	10	2	7
21	69	31	16	51	39	9	43	81	9	1	54
22	68	29	42	52	38	9	22	82	8	1	41
23	67	28	16	53	37	9	3	83	7	1	25
24	66	26	57	54	36	8	43	84	6	1	10
25	65	25	44	55	35	8	24	85	5	1	2
26	64	24	37	56	34	8	6	86	4	0	50
27	63	23	33	57	33	7	48	87	3	0	38
28	62	22	34	58	32	7	30	88	2	0	25
29	61	21	40	59	31	7	13	89	1	0	12
30	60	20	47	60	30	6	56	90	0	0	0
Heyght of the Sunne.		Squier. Shadow.		Heyght of the Sunne.		Squier. shadow.		Heyght of the sunne.		squyer. shadowe.	

The vse of this Table, and fyrst for Staffe Shadow.

Ensample.

I Suppose the height of the Sunne taken by the Quadrant 34 degrees, nowe I requyre the eracte length of Staffe and Squier Shadowe. For ryght shadowe, first seke out the degrees in the left part of ỹ Table, and vnder this title the heighte of the Sun: if they be not in that leste rowe downewardes, resorte to the next rowe and lyke tytle, vntyll ye fynde the degrees, then in ryght order toward the right hand, in the nert Columpne vnder the title of Staffe Shadow, are 17 partes and 47 minuts, your desyre.

For Squyer Shadowe, titled contrary Shadow.

Seke your degrees in the ryghte parte vpwarde at thys title *Heyght of the sunne*, in the botome of this Table: then shal ye find on the right hand of 34 degrees, in the nert Columpne 8 *partes* and 6 *Minutes*: that is the very lengthe of Squier Shadowe, when the Sunne is 34 degrees in height.

OCcasioned I cannot here omitte an other Table faythfullye supputated for the *Sunnes altitude*, by the which with quicke speade the houre is knowen. This Table conducteth manye solde wayes, yea to the Compositien of diuers and many Instrumentes: as *Quadrãtes*, Nauicles, Cylindres, Rynges. &c.

Beholde now it doth ensue, and also the ryght vse of it.

A.162.

¶ A Table of the Sunnes altitude, for euery houre: the Pole mounted. 51. degrees 30. Minutes, exactely calculated.

Houres before n.				12		11		10		9		8		7		6		5		4	
Houres after n.						1		2		3		4		5		6		7		8	
Si.	G	S	G	g	M	G	M	g	M	g	M	g	M	g	M	g	M	g	M	g	M
	30	♋	0	62	0	59	45:	53	45	45	42	36	42:	27:	23:	18	11	9	28:	1	31.
	25		5	61	54																
	20		10	61	37:	59	21.	53	26:	45	24.	36	25	27	6	17	50.	9	9.	1	13:
	15		15	61	9:																
	10		20	00	30:	58.	17	52	28.	44	32	35	35	26	16.	17	3	8	16.	0	16:
	5		25	59	41:																
♊	0	♌	0	58	42:	56	34.	50	55:	43	6.	34	13.	24	56:	15	41:	6	50.	0	0
	25		5	57	34.																
	20		10	56	17:	54	15	48	48	41	10:	32	22.	23	6.	13	50	4	55:	0	0
	5		25	51	43:																
♉	0	♍	0	50	0	48	11	43	11.	35	58	27	27.	18	18:	8	58:	0	0	•	
	25		5	48	12:																
	20		10	46	20:	44	37.	39	51	32	53:	24	32.	15	27.	6.	8:	0	0		
	15		15	44	25:																
	10		20	42	28:	40	51:	36	18	29	34:	21	24:	12	25:	3	6.	0			
	5		25	40	29:																
♈	0	♎	0	38	30	36	58	32	37.	26	7:	18	8.	9	16.	0	0				
	25		5	36	30:																
	20		10	34	32.	33	4	28	55:	22	38:	14	51:	6	7	0	0				
	15		15	32	35.																
	10		10	30	40.	29	16.	25	18	19	14.	11	38	3	2:	0					
	5		25	28	48:																
♓	0	♏	0	27	0	25	40	21	51:	15	59:	8	34.	0	6.						
	25		5	25	17.																
	20		10	23	39.	22	22.	18	42:	13	1:	5	45.	0							
	15		15	22	8.																
	10		20	20	43.	19	29	16	55.	10	23:	3	19.	0							
	5		25	19	26:									0							
♒	0	♐	0	18	18.	17	6	13	38:	8	13:	1	15.	0							
	25		5	17	19.																
	20		10	16	30.	14	48:	11	55.	6	36:	0	0								
	15		15	15	51.																
	0		20	15	23.	14	13.	10	52:	5	36	0									
	5		25	15	6.																
♑	0		0	15	0.	13	51	10	30.	5	15.										

VVhen nhe Sunne entreth the 22 grade of ♋, he toucheth our Horizon at 4 in the morninge. Entring the 22 of ♑, he ryseth at 8. In the first of ♉, at 5. In the first of ♏, at 7. Note in all my tables, one pricke folowyng the Minutes, diminisseth two, augmenteth summe smale quantitye.

The briefe vse of thys Table.

Suppose the height of the Sunne taken by the Quadrante, 8 degrees and 13 Minutes, the Sunne beyng in the begin ning of Aquarie or Sagittarie, I seke, & fynde in this Table and in the Rowe whiche directlye aunswereth ♒ and ♐ 8 degrees & 13 Minutes: that is agreable to 9 or 3 of the clocke in the head of this Table. Therfore I pronounce that when the Sunne was 8 degrees and 13 Minutes in heyght, entrynge ♒ or ♐, it was precise 9 of the clocke in the morning, or 3 at after Noone. Thus at all tymes ye may know the iust hour.

Ye may also conclude the heyghte of the Sunne at all tymes, the place of the Sunne knowen, and the houre. Note when the precise numbres eyther of heyght, or degre of the Sunne are not founde in the Table, then make *proportion* according to the difference &c. Practise better then many wordes openeth thys. Nowe to ende this matter, this folowynge to him that hathe taken these knowledges I wryte.

Dato loco Solis & eius altitudine, horam ipsam calculare.

Due sinum inuentæ solaris altitudinis, in sinum arcus semidiurni, & producti diuide per sinum altitudinis meridianæ eiusdem Solis, & prouenientis inde partium numeri sumito arcum, quem tandem in horas uertas: Collectus horarium numerus quæsitam indicabit horam: ab ortu quidem Solis, si altitudo fuerit antemeridiana, uel ab occasu, si eadem Solis altitudo acciderit post meridiem.

Now hauing summe occasion I could here adioyne a briefe Supputation Sinical, touching most workinges Astronomical, but how farre that passeth the capacitye of the common sorte of men, they that be trauayled knowe. For this cause I leaue to geue any precepts this way: desiring prouocation mete to haue to do in the lyke: then God suffering my pen shall not stay to open readye chosen generall wayes, for pleasaunt Astronomical operation.

Here shall nowe folowe briefly collected certaynte rules performed before by Tables: but nowe doone by quicke *supputation*, to be had in memory, by that auoidinge cariage or burdayne of bookes.

BRIEFE

A way to get the Golden number or Prime without a Table.

ADde vnto the yeare of oure Lorde 1. then deuide that summe by. 19. the remayne is the Prime or Golden number.

The Epact is thus euer founde.

MUltiply the prime by 11. deuide by 30, the remayne is your desier. These two numbers begin at Marche, there is chiefly to finde out the Chaunge, Quarters, and ful Mone as ensueth.

A rule for the Chaunge, Full and Quarters of the Moone.

PUt vnto the Epacte all the Moneths from March, including the Moneth of March: put then that summe from 30: the remaines sheweth the day of the chaunge.

Here note the full Moone is the. 15. daye after the chaunge. Also if the remain be lesse then. 15. subtract that lesse from 15, the rest is the full Moone.

If the remayne passe. 30 subtract it from. 45, then the full dothe also appeare.

To conclude, if from the ful Moone ye put 15 dayes, ye haue the chaunge going before. The chaunge had, the Quarters are knowne: by adding or pulling away 7 daies.

For the age of the Moone, worcke thus for euer.

ADde to the dayes of your moneth the Epacte, & also as many dayes more as are Monethes from Marche to your Moneth, including both Monethes. Now subtract 30 if ye maye, the age then remayneth.

Now shalbe declared what Signes and degrees the Moone differeth from the Sunne, by whiche is gathered at all times the Signe and Grade wherin she is.

Multiply

MUltiplye the age of the *moone* by 4, deuide by 10. the *Quotient* sheweth the *signes* that the *Moone* differeth from the *Sunne*. The remayne augmented by 3 bryngeth degrees to be added. Ye muste put theese *signes* and degrees to the place of the *sunne*, the product the. I meane the Increase or ende of all these *signes* and *degrees*, in order couted from the *sunne* declare: the place of the *Moone* in the *zodiacke*.

The place of the Sunne in the Zodiacke is thus found.

FIrst knowe that the 11 day of *Januarij*, the *sunne* is entred ♒. the 10 daye of *Februarij* ♓. The 11. of *Marche* ♈. The 11. of *Aprile* ♉. The 12. of *May*, ♊. The 12. of *Iune* ♋. The 14. of *July* ♌. The 14. of *August*. ♍. The 14. of *September* ♎. The 14. of *October* ♏. The 13. of *Nouember* ♐. The 12. of December ♑.

This knowen, the place of the *sunne* is well found, addinge for euery day past any entrey 1 degre.

Ensample.

I Require the place of the *Sunne* the 21. daye of *Auguste*. I fynde that the Sunne is entered in ♍ the 14. daye of the Moneth. I must for euery day paste anye entrey adde 1 degree. There are 7. dayes past that entrey, then I conclude the *sunne* readye to haue place in the 8. degree of ♍ the. 21. of *August*.

To know how long the Moone shineth.

FOr her shyning, in the encrease multiply the age of the Mone by 4. In the Wane augment the rest of the age which she lacketh of 30 be 4. and deuide by 5 the *Quotient* sheweth ỳ houres: the remaynes if ther be any, multiplied by 12. bringeth minutes to be added.

How the moueable Feastes are founde readily.

SEke the chaunge of the *Mone* in *February*, for that yeare ye require therse *Moueable feastes*. Note what daye it falleth on, the nexte tuesdaye is *Shrofetuesday*. But if the chaunge be on tuesday, then the next tuesdaye ensuinge is it. The next Sonday is the first *sonday of Lent*. Sixe Sondayes after is *Easter day*. Adde. 35. dayes or. 5. weekes to *Easter daye*, ye haue *Rogation sonday*. To that adde. 4. daies so haue ye *Assension day*. Then haue ye 10. dais to *VVhitsontyde*. Seuen dais after is *Trinity sonday*. And four dayes after is *Corpus Christi day*.

VVithout Tables at all times to know the Tydes.

LEarne as is declared the age of the *Moone*, also remember the houre of the full, or chaunge, for your place or poynct whyche dothe neuer vary: these knowen worke thus.

Ensample.

VVhen the *Mone* is. 10. dayes old, I desire to know at what of the clock it is ful *sea* at London bridge. Multiply. 10. by. 48. so haue ye 480: diuide that by. 60, ye haue. 8. houres. To that adde. 3. whiche is the hour of the full or chaunge appoyncted for that place. All then cummeth vnto. 11. of the clocke hyghe water at London brydge. If any thyng remayne they are *Minutes* of an houre. If the houres amounte aboue. 12, caste the twelues away, the rest is your request.

FINIS.

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[illegible] 169 dayes [illegible] 22646 yeares [illegible] 134 yeares what 169 dayes [illegible] 22646 yeares